ICT CHAMPIONS LEAGUE



كورسات اونلاين لمادة التكنولوجيا ICT
للصف الرابع - الخامس - السادس الابتدائي
والصف الاول الاعدادي

اشترك الان · 17TH JULY 2024 / 07:00 PM · بداية الحجز

لمزيد من المعلومات تواصل معنا على رقم الواتس آب
01004767201

Online Course

أستاذ

أحمد حمدي هاشم

ICT TEACHER

خبرة أكثر من 15 عامًا في تدريس مادة التكنولوجيا في المدارس العربي والخاصة للغات والرسمية للغات

يُعلن عن

بدء الحجز

للعام الدراسي الجديد 2024-2025

في مادة تكنولوجيا المعلومات ICT

للصفوف الاتية:

- الرابع - الخامس - السادس الابتدائي.
- الاول الاعدادي.

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مستر أحمد حمدي
دوري أبطال التكنولوجيا
موسم 2025
CHALLENGE EVERYTHING
رحلة الطلاب
إلى قمة الترتيب
الأبطال لا يولدون، بل يُصنعون!
احجز مقعدك
كورسات اونلاين لمادة التكنولوجيا ICT
للصفوف الرابع والخامس والسادس الابتدائي والاول الاعدادي
للمدارس العربي واللغات
01004767201

الكمبيوتر و تكنولوجيا المعلومات والاتصالات للمدارس الرسمية والخاصة لغات



COMPUTER & INFORMATION AND COMMUNICATION TECHNOLOGY

FREE GIFT
NOT FOR SALE

1ST Prep. 2025
FIRST TERM

• التطبيقات الإلكترونية التفاعلية
• قاموس المعاصر الناطق
تعلم وتفاعل والقن

الصف الأول الإعدادى
الفصل الدراسى الأول

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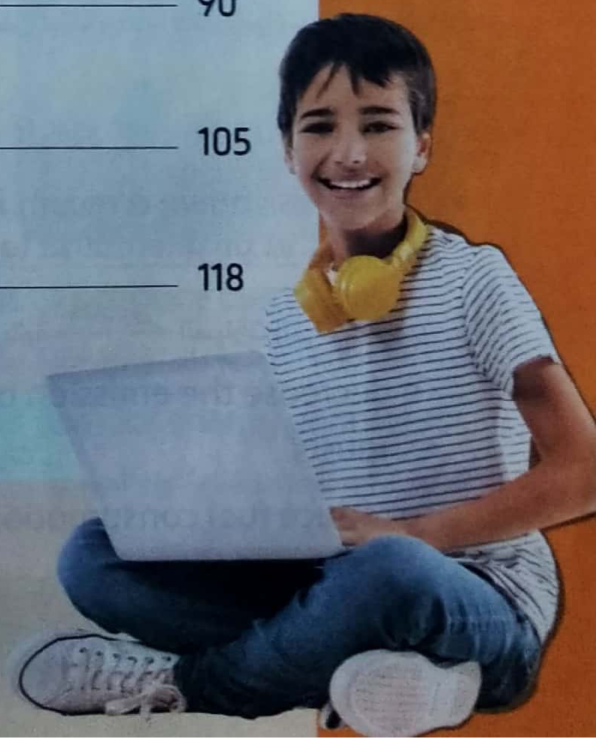
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LESSON 1

Green Technology



Green Technology

- **Green Technology :** is based on technological tools that help protect the environment, rather than causing harm, and rationalize the use of its resources.
- **It is referred to as :**
  - **Sustainable technology**
  - Or
  - **Clean technology**

- تقوم فكرة التكنولوجيا الخضراء بالاعتماد على الأدوات التكنولوجية التى تساهم فى الحفاظ على البيئة وعدم الإضرار بها وترشيد الاستهلاك لمواردها. ويطلق عليها أحيانًا اسم التكنولوجيا المستدامة أو النظيفة.

Example



* Egypt has shown a recent interest in using electric vehicles **as an alternative to** traditional fuel-powered cars.

- اهتمت مصر فى الفترة الأخيرة باستخدام المركبات الكهربائية **بديلًا عن** السيارات التى تعمل بالوقود.

- To decrease the emission of harmful substances from car exhausts. — لتقليل نسبة الانبعاثات الضارة من عوادم السيارات.
- To reduce fuel consumption. — تقليل نسبة استخدام الوقود.

based on	تعتمد على	fuel-powered	تعمل بالوقود	emission	انبعاثات	electric vehicles	مركبات كهربائية
sustainable	مستدامة	tools	أدوات	environment	بيئة	car exhausts	عوادم السيارات

* **Electric cars operate using :**

batteries —that→ come with a charging station enabling connection to an external power source for recharging.

- تعمل السيارات الكهربائية بالبطاريات ←التي تكون— مزودة بمكان للشحن يسمح بتوصيل السيارة بمصدر خارجي للكهرباء للقيام بالشحن.

Fields of using green technology : مجالات استخدام التكنولوجيا الخضراء :

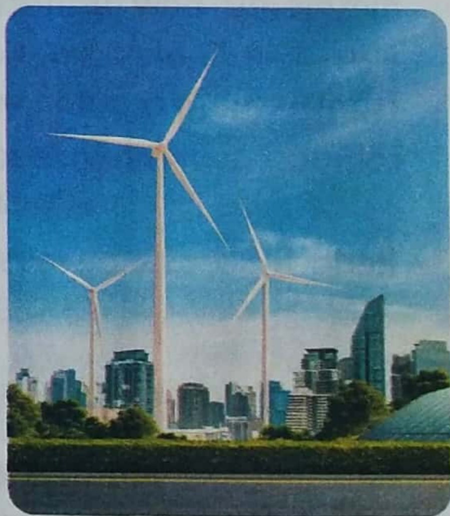
Green technology is used in many aspects of life

such as

Renewable Energy الطاقة المتجددة	Rationalizing energy consumption and using it responsibly ترشيد استهلاك الطاقة واستخدامها بشكل مسؤل	Waste Recycling إدارة النفايات	Water Treatment معالجة المياه

1 Renewable Energy الطاقة المتجددة

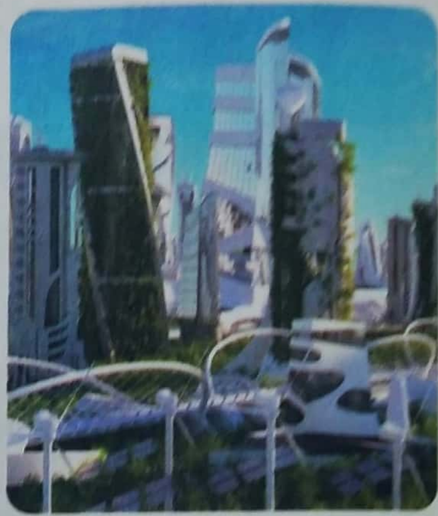
- **Solar energy :** —Using→ sunlight to generate electricity through solar panels.
  طاقة الشمس : استخدام الألواح الشمسية لتحويل ضوء الشمس إلى كهرباء .



- **Wind power :** —Using→ wind turbines to generate electricity from air movement.
  طاقة الرياح : استخدام توربينات الرياح لتوليد الكهرباء من حركة الهواء.
- **Hydro Power :** —Using→ dams to generate electricity from water movement.
  الطاقة المائية : استخدام السدود لتوليد الكهرباء من حركة الماء.
- **Geothermal energy :** —Using→ the Earth's internal heat to produce electricity.
  الطاقة الحرارية الأرضية : استخدام حرارة باطن الأرض لتوليد الكهرباء.
- **Bioenergy :** —Using→ organic materials like soybeans and corn for energy generation.
  الطاقة الحيوية : استخدام المواد العضوية مثل : نباتات الصويا والذرة لتوليد الطاقة.

field	مجالات	charging station	مكان شحن	dams	سدود	movement	حركة
sunlight	ضوء الشمس	rationalization	ترشيد	consumption	استهلاك	organic materials	مواد عضوية
solar panels	ألواح شمسية						

2 Rationalizing of energy consumption and using it responsibly
ترشيد استهلاك الطاقة واستخدامها بشكل مسئول



- **Green Building :** المبانى الخضراء
  - Constructing and designing buildings using : materials : إنشاء تصميم مبانى باستخدام :
    1. environmentally friendly and energy-saving materials مواد صديقة للبيئة وموفرة للطاقة
    2. Improving ventilation, and insulation وتحسين التهوية والعزل
- **Using energy-saving electrical appliances and highly-efficient computers.**
  استخدام أجهزة كهربائية موفرة للطاقة وأجهزة الكمبيوتر ذات الكفاء العالية.
- **Smart transportation :** using electric vehicles to improve energy efficiency in the transportation sector.
  النقل الذكى : استخدام المركبات الكهربائية لتحسين كفاءة استخدام الطاقة فى قطاع النقل.

3 Waste Recycling إدارة النفايات



- **The recycling of materials like paper , plastic , and metals into new products.**
  إعادة تدوير المواد القابلة لإعادة التدوير مثل الورق والبلاستيك والمعدن إلى منتجات جديدة.
- **Transforming organic waste into nutrient-rich compost** to → enhance soil fertility.
  تحويل النفايات العضوية إلى سماد غنى بالمغذيات ← لتحسين خصوبة التربة.
- **Reducing waste by reusing and repairing products.**
  تقليل كمية النفايات : التى يتم إنتاجها من خلال إعادة الاستخدام وإصلاح المنتجات.

4 Water Treatment معالجة المياه



- **Purifying contaminated water:**
  - to be reused or drunk. تنقية المياه الملوثة : لإعادة استخدامها أو شربها.
- **Using smart efficient irrigation systems like drip irrigation.** استخدام أنظمة رى ذكى موفرة للمياه : مثل الرى بالتنقيط.
- **Repairing water leaks and using water-saving devices** to → rationalize water consumption.
  إصلاح تسريبات المياه واستخدام أجهزة موفرة للمياه ← لترشيد استهلاكها.

purifying	تنقية	transforming	تحويل	metals	معادن	repairing	إصلاح
recycling	إعادة تدوير	irrigation	رى	nutrient-rich compost	سماد غنى بالمغذيات	new products	منتجات جديدة
construction	إنشاء	design	تصميم	sector	قطاع		

Pop Quiz

▶ **Choose the correct answer from a, b, c or d.**

1. Green technology is referred to as .... technology.
   a. sustainable b. traditional c. parallel d. harmful
2. Electric cars are used to decrease the ....
   a. number of cars b. harmful emission
   c. crowd d. charging
3. The renewable energy include geothermal energy , bioenergy and .... energy .
   a. green building b. fuel c. devices d. hydropower
4. .... is transformed into nutrient-rich compost to enhance soil fertility.
   a. Industrial production b. Energy
   c. Electricity d. Organic waste

Benefits of green technology : فوائد التكنولوجيا الخضراء :

1 Preservation of the environment from climate change الحفاظ على البيئة من التغيرات المناخية

▶ **The effect of car exhaust has helped :** ساعد تأثير عادم السيارات على زيادة :

1. increase the percentage of carbon dioxide in the atmosphere. زيادة نسبة ثانى أكسيد الكربون فى الغلاف الجوى

2. increase the percentage of global warming which has led to environmental damage. زيادة نسبة الاحتباس الحرارى مما أدى إلى حدوث أضرار للبيئة .



▶ **This has helped to focus on finding means of transportation that reduce this damage such as electric cars.** – مما ساعد على الإهتمام بإيجاد وسائل مواصلات تقلل من الأضرار مثل السيارات الكهربائية .

▶ Electric cars contribute to :

1. reducing the percentage of carbon dioxide levels. تقليل نسبة ثانى أكسيد الكربون فى الجو.

2. reducing the percentage of decrease environmental pollution تقليل نسبة التلوث البيئى.

decrease	يقلل	lesson	يقلل	atmosphere	الغلاف الجوى	result in	يؤدى إلى

2 Resource Conservation (Water - Electricity) الحفاظ على الموارد (المياه – الكهرباء)

▸ Green technology helps rationalize water and electricity consumption through many things including :

ـ يمكن للتكنولوجيا الخضراء ترشيد استهلاك المياه والكهرباء من خلال العديد من الأمور منها:

Solar Energy technology

تكنولوجيا الطاقة الشمسية

Electricity conservation:

لترشيد استهلاك الكهرباء

- Solar energy technology, which relies on the use of photovoltaic panels and converting them → into electrical energy.
- And operating automatically when needed them.

– من خلال اعتمادها على استخدام الألواح الضوئية وتحويلها ← إلى طاقة كهربائية.

– وتشغيلها آليًا وقت الحاجة.



Body Sensors

أجهزة الاستشعار للأجسام

Water conservation: لترشيد استهلاك المياه



- Body sensors (sensors) through which the water in the tap is (turned on/off) as a result of the presence of the body (hand) under the tap; which allows water to flow when needed.

يتم من خلالها التحكم في (تشغيل / إيقاف) المياه في صنابير المياه نتيجة لوجود جسم (اليد) تحت الصنبور مما يسمح بتدفق المياه وقت الحاجة لذلك.

Electricity conservation : لترشيد استهلاك الكهرباء

- Can also be rationalized inside homes and companies through the same idea of sensors with bodies. Where it is possible to (turn on/off) electric lights when needed.

يمكن ترشيد استهلاك الكهرباء داخل المنازل والشركات من خلال فكرة الحساسات مع الأجسام حيث يمكن (تشغيل /إيقاف) المصابيح الكهربائية وقت الحاجة إلى ذلك.

Activity 1 Dear student

With your classmates and the help of your teacher , search the internet for technologi tools that help conserve or rationalize consumption of (water - electricity).

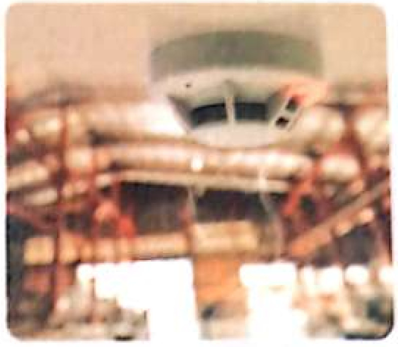
usage	استخدام	flow	تدفق	photovoltaic panels	الألواح الضوئية	optimize

Sensors usages : استخدامات أجهزة الاستشعار :

- Sensors are used in many tasks, including : نستخدم اجهزة الاستشعار في مهام عديدة منها :

Sensors usages

- detecting smoke from fires. اكتشاف دخان الحرائق
- regulating temperatures. ضبط درجات الحرارة
- operating the lights through many methods. تشغيل الأضواء بطرق مختلفة



Activity 2 Dear student

In collaboration with your partners, create a presentation explaining to your partners the idea of how sensors work .

Pop Quiz

① Put (✓) in front of the correct sentence and (✗) in front of the wrong one :

1. The effect of car exhaust has helped increase the percentage of carbon dioxide in the atmosphere. (   )
2. Body sensors are used for water conservation only . (   )
3. The electric cars decrease environmental pollution. (   )
4. Solar energy technology relies on photovoltaic panels .

② Read and write the correct term :

1. They are used to rationalize consumption of water and electricity through bodies. (   )
2. These cars reduce carbon dioxide percentage and operate using batteries. (   )
3. They are used to detect smoke from fires and regulate temperatures. (   )

Stop here !



استمع إلى ملخص الدرس

نقاط هامة وعبارات استرشادية تمكنك من تلخيص وإتقان الدرس.

Lesson Summary

- Green technology is based on technological tools that help protect the environment, rather than causing harm, and rationalize the use of its resources.

ـ تقوم فكرة التكنولوجيا الخضراء بالاعتماد على الأدوات التكنولوجية التى تساهم فى الحفاظ على البيئة وعدم الإضرار بها وترشيد الاستهلاك لمواردها.

- Electric vehicles are used as an alternative to traditional fuel-powered cars to decrease the emission of harmful substances from car exhausts.

ـ تم استخدام المركبات الكهربائية بدلًا من السيارات التى تعمل بالوقود لتقليل نسبة الانبعاثات الضارة من عوادم السيارة.

- Electric cars operate using batteries.

ـ تعمل السيارات الكهربائية بالبطاريات.

- Green technology is used in many aspects of life such as renewable energy, rationalizing energy consumption, waste recycling and water treatment.

ـ تستخدم التكنولوجيا الخضراء فى العديد من المجالات الحياتية منها الطاقة المتجددة وترشيد استهلاك الطاقة وإدارة النفايات ومعالجة المياه.

- Green technology helps rationalize water and electricity by using sensors.

ـ تساعد التكنولوجيا الخضراء على ترشيد استهلاك المياه والكهرباء باستخدام أجهزة الاستشعار.

- Body sensors are used to detect smoke from fires and regulate temperatures.

ـ تستخدم أجهزة الاستشعار (sensors) لاكتشاف دخان الحرائق وضبط درجات الحرارة.

How to deal with the exam

كلمات و عبارات إسترشادية تساعدك على حل أسئلة الامتحان.

Topic	Guiding words	Exam items
Green Technology	sustainable - technology	Green technology is called sustainable or clean technology.
	wind power - environment	Wind power, hydropower, geothermal energy and bioenergy hel protect the environment.
	green buildings	Constructing and designing of green buildings using environment friendly and energy-saving materials.
	Smart transportation	Smart transportation uses electric vehicles to improve energy efficiency in the transportation sector.
	soil fertility	Organic waste is transformed into nutrient-rich compost to enhance soil fertility.
	photovoltaic panels	Solar energy technology relies on the use of photovoltaic panel

General Exercises

On Lesson One

يمكنك حل التدريب
وتصويبه إلكترونيا



ممتاز ● جيد جدا ● جيد ● غير جيد ●

▸ If you got ● you need to revise the lesson again.

قم بتقييم نفسك بالعلامات الموضحة وإذا حصلت على ● (غير جيد) قم بمراجعة الدرس مرة أخرى من الصفحة السابقة.

El-Moasser Exercises

1 Choose the correct answer from a, b, c or d.

1. All of the following are benefits of using electric cars in smart transportation except ....
   a. increasing pollution
   b. reducing carbon dioxide emissions
   c. reducing global warming
   d. reducing fuel consumption
2. .... is one of the benefits of waste recycling materials like plastic and paper.
   a. Wasting resources
   b. Reducing waste
   c. Polluting the environment
   d. Increasing global warming
3. .... is one of the advantages of using smart irrigation system.
   a. Increasing water consumption
   b. Increasing Global Warming
   c. Reducing water waste
   d. Reducing waste
4. Using water treatment systems helps in ....
   a. increasing water consumption
   b. conserving water
   c. increasing waste rates
   d. saving electrical energy
5. .... are devices used to conserve water and electricity.
   a. Sensors
   b. Televisions
   c. Computers
   d. Household appliances
6. Green Buildings are important to ....
   a. Increase energy costs
   b. Increase carbon dioxide
   c. Protect the environment
   d. Increase global warming
7. The main benefits of using renewable energy sources include ....
   a. reducing pollution
   b. increasing reliance on fuel
   c. providing energy sources
   d. both (a) and (c)
8. Green technology helps in ....
   a. increasing carbon emissions
   b. increasing pollution rates
   c. reducing the effects of climate change
   d. increasing energy costs
9. Electric cars use .... instead of fuel.
   a. turbines
   b. batteries
   c. transformers
   d. hydropower

2 Complete the following sentences.

1. .... helps to reduce greenhouse gas emissions.
2. .... is a technique that helps reduce the rate of global warming.
3. .... helps in conserving natural resources.
4. Rationalizing consumption helps protect .... from pollution.
5. .... is one of the most important fields of green technology.

3 Put (✓) or (×) for the following sentences.

1. Smart irrigation systems help increase water consumption. (
2. Green technology helps increase using fossil fuels. (
3. Electric cars help reduce traffic jam. (
4. Sensors help reduce carbon dioxide emissions. (

Student's Book Exercises

1 Put (✓) or (×) for the following sentences.

1. Green technology tools contribute to increasing the rate of environmental pollution as a result of their use. (
2. The idea of sensors in water taps depends only on stopping the water automatically. (
3. Electric cars are one of forms of green technology. (
4. The concept of green buildings is given to institutions that can rationalize the consumption of their resources. (

2 Think and answer :

- Green technology tools contribute to maintaining a clean environment for presen and future generations. Explain that.

....

3 Discuss with your partners :

- Put a set of ideas through which you can employ green technology tools to keep t environment clean. Work through a group using digital research tools.

....

4 Research, create and show :

- Design a model for a sensor concept aimed at purifying the air in your home or rationalizing electricity consumption in your classroom.

....

قم بتلوين الدائرة باللون
المناسب لمستواك.



LESSON 2

Digital transformation and its importance in our daily lives



"Digital Transformation" التحول الرقمي

The combination of digital technology into all aspects of business

هو دمج التكنولوجيا الرقمية في جميع جوانب العمل

to enhance workflow efficiency لتحسين كفاءة سير العمل	lower costs خفض التكاليف	innovate products and services تطوير المنتجات والخدمات المقدمة بطرق جديدة مبتكرة

- **Digital Transformation** → is a national project that moves Egypt to deal through an information environment that links all government agencies to each other.

– التحول الرقمي مشروع قومي ينقل مصر إلى التعامل من خلال بيئة معلوماتية تربط كل الجهات الحكومية ببعضها البعض.

- Citizens can obtain all their services through the internet and mobile applications, so that various services and products are provided to citizens in an easier and faster way.

– فيمكن للمواطن الحصول على كل خدماته من خلال الإنترنت وتطبيقات الموبايل، ليتم تقديم الخدمات والمنتجات المختلفة للمواطن بصورة أسهل وأسرع.

combination	دمج	costs	تكاليف	workflow	سير العمل
innovate	تطوير	applications	تطبيقات	all aspects	جميع الجوانب
links	تربط	citizens	المواطنين	national project	مشروع قومي

The importance of digital transformation : أهمية التحول الرقمى



▶ **Digital transformation is essential for institutions and companies for several reasons, including :**

- يُعد التحول الرقمى ضروريًا للمؤسسات والشركات لعدة أسباب منها :

1 Increasing efficiency and production by :

زيادة الكفاءة والإنتاج من خلال :

→ improving workflow.

- تحسين سير العمل.

→ reducing errors, saving time and effort, which saves money.

- تقليل الأخطاء وتوفير الوقت والجهد مما يوفر المال.



2 Raising the level of services and products provided to customers.

- رفع مستوى الخدمات والمنتجات المقدمة للعملاء.

3 Increasing sales and revenues by :

- زيادة المبيعات والإيرادات من خلال :

→ reaching new markets and new customers.

- الوصول إلى أسواق جديدة وعملاء جدد.

4 Innovation and creativity :

- الابتكار والإبداع :

→ Digital transformation contributes significantly to enhancing innovation and development in institutions and companies.

- يساهم التحول الرقمى بشكل كبير فى تعزيز الابتكار والتطوير فى المؤسسات والشركات.

→ To provide new and good products and services.

- لتقديم منتجات وخدمات جديدة وجيدة.

digital transformation	التحول الرقمى	customers	عملاء	enhancing

5 Maintaining competitiveness by : الحفاظ على القدرة التنافسية من خلال :

→ Keeping pace with the latest technological developments.

- مواكبة أحدث التطورات التكنولوجية.

6 Improving decision-making by : - تحسين اتخاذ القرار من خلال :

Providing تقديم
- **data** البيانات
- **information** المعلومات
- **analysis** التحليلات

in timely manner to make informed decisions
في الوقت المناسب لاتخاذ قرارات مستنيرة

7 Reducing the use of energy and resources. - تقليل استخدام الطاقة والموارد.

8 Creating new job opportunities. - خلق فرص عمل جديدة.

Digital transformation tools أدوات التحول الرقمي

- There are many digital transformation tools available through ▶ programs , technologies and services to help organizations and companies improve performance , efficiency and competitiveness .

- تتوفر من خلال برامج ، تقنيات و خدمات لمساعدة المؤسسات والشركات لتحسين الأداء ، الكفاءة و التنافسية .

Tools أدوات

- electronic payment methods
  وسائل الدفع الإلكترونية
- managing workflows
  إدارة سير العمل
- Collaborative and communicative
  التعاون والتواصل
- E-learning resources
  التعلم الإلكترونى
- Cloud computing technologies
  الحوسبة السحابية
- Artificial intelligence and machine learning technologies
  الذكاء الإصطناعى والتعلم الآلى
- Cybersecurity solutions
  الأمن السيبرانى

collaborative	التعاون	payment	الدفع	intelligence	ذكاء	efficiency	تقنيات

Pop Quiz

▸ **Choose the correct answer from a, b, c or d.**

1. .... is the combination of digital technology into all aspects of business.
   a. Program b. Application
   c. Digital transformation d. Service
2. The availability of data and information in companies help in many matters, including ....
   a. increase in human errors b. increase job opportunities
   c. increase waste of time and effort d. cost increase
3. All of the following are reasons for using digital transformation except ....
   a. enhance workflow b. reduce errors
   c. save time and effort d. lack of production efficiency

First Tools for workflow management أدوات إدارة سير العمل

* It improves the efficiency of repetitive operations and tasks, such as the **"Digital Egypt"** platform.

– هى تحسين كفاءة العمليات والمهام المتكررة، مثل : **منصة "مصر الرقمية".**

The "Digital Egypt" Platform منصة "مصر الرقمية"

* It is a government electronic portal that provides many electronic services to citize such as paying **electricity and water bills.**

بوابة إلكترونية حكومية توفر العديد من الخدمات الإلكترونية للمواطنين مثل : **دفع فواتير الكهرباء والماء.**

* The application can be downloaded and used on mobile device.

كن تحميل التطبيق واستخدامه على جهاز الموبايل.



Activity

In cooperation with your partners and with the help of your teacher :

– Search for the digital Egypt website.

– Search for the digital services provided through the digital Egypt website.

platform	منصة	repetitive	متكرر	tasks

Second Electronic payment methods أدوات الدفع الإلكترونية

Such as :

1 "Electronic payment cards **Meeza**"

"بطاقات الدفع الإلكترونية **ميزة**"

- provide easy, fast, and secure electronic payment methods.
  توفر طرق دفع إلكترونية سهلة وسريعة وآمنة.
- to facilitate electronic financial transactions for citizens.
  تسهيل المعاملات المالية الإلكترونية للمواطنين.

2 **"INSTAPAY"**

application for electronic payments

(Licensed and approved by the Central Bank of Egypt)

"تطبيق نظام الدفع الإلكترونى إنستباى"

[مرخص ومُعتمد من قبل البنك المركزى المصرى]

- provides many services such as **paying bills**.
  يقدم العديد من الخدمات **مثل دفع الفواتير**.
- allows sending and receiving money through a **bank account** or **electronic wallet**.
  يسمح بإرسال واستقبال النقود عبر **الحساب البنكى** أو **المحفظة الإلكترونية**.

Third Collaboration and Communication Tools أدوات التعاون والتواصل

- Zoom
- Google Meet

→ is a video conferencing application

– هى تطبيقات مكالمات فيديو ومؤتمرات عبر الإنترنت.

→ that enables face - to - face communication with others.

– يمكنك من للاتصال بالآخرين وجهًا لوجه.

Important Note :

In order to access any digital services or products, **an email address** is required.

* للحصول على أى من الخدمات أو المنتجات الرقمية يجب أن يكون لديك **بريد إلكترونى**.

communication	التواصل	payment	الدفع	funds	أموال
digital wallet	محفظة إلكترونية	methods	طرق	wallet	محفظة

Activity 1 Dear student

Read the following situation and then write down your notes.
"One of your family members traveled on a trip to one of the governorates of Egypt and he needed some money during his trip quickly and safely."

- How do you suggest to your father or mother to send the money he/she needs ?

....

- What are the fastest and easiest ways to send and transfer money between individuals ?

....

Activity 2 Dear student

In cooperation with your partners and with the help of your teacher, log into one of the following platforms :

– Our school platform is under the link https://moe.gov.eg//ar/educationalplatform



– Choose our school platform.
– Take a tour inside our school's platform.
– Choose the educational stage, grade and subject you want.

The relation between green technology and digital transformation
العلاقة بين التكنولوجيا الخضراء والتحول الرقمى

- Green technology and digital transformation are closely related.

ترتبط التكنولوجيا الخضراء بالتحول الرقمى ارتباطا وثيقا.

- Each enhances the other and contributes to achieving common goals.

يعزز كل منهما الآخر ويساهم فى تحقيق أهداف مشتركة.

closely rated	ارتباط وثيق	common	شائع/مشترك	goals	أهداف

The most important common axes between green technology and digital transformation :

أهم المحاور المشتركة بين التكنولوجيا الخضراء والتحول الرقمى

	Green technology التكنولوجيا الخضراء	Digital transformation التحول الرقمى
1 Enhancing the efficiency of resource use تعزيز كفاءة استخدام الموارد	Reducing the consumption of natural resources, such as energy and water, by using more efficient technologies. تقليل استهلاك الموارد الطبيعية، مثل : الطاقة والمياه، من خلال استخدام تقنيات أكثر كفاءة.	Reducing reliance on raw materials such as paper and pens, and reducing waste. تقليل الاعتماد على الخامات منها (الورق – الأقلام ..)، وتقليل الهدر.
2 Reducing harmful emissions خفض الانبعاثات الضارة	Using renewable energy sources and improving energy efficiency. استخدام مصادر طاقة متجددة وتحسين كفاءة استخدام الطاقة.	Decreasing the necessity for transportation and mobility while improving the effectiveness of business transactions تقليل الحاجة إلى النقل والتنقل، وتحسين كفاءة العمليات التجارية.
3 Supporting sustainability دعم الاستدامة	By protecting the environment and improving the quality of life for future generations. من خلال حماية البيئة وتحسين جودة الحياة للأجيال القادمة.	By improving resource efficiency, decreasing emissions, and enhancing innovation. من خلال تحسين كفاءة استخدام الموارد، وخفض الانبعاثات، وتعزيز الابتكار.

Examples of the integration of green technology and digital transformation applications

أمثلة على تطبيقات التكنولوجيا الخضراء والتحول الرقمى معًا

- Smart energy grids شبكات الطاقة الذكية
- Precision farming الزراعة الدقيقة
- Smart buildings المبانى الذكية
- Smart transportation النقل الذكى
- Smart cities المدن الذكية

Benefits of integration green technology with digital transformation :

فوائد ربط التكنولوجيا الخضراء بالتحول الرقمى.

- Speeding up the process of the digital transformation.
  – تسريع عملية التحول الرقمى.
- Enhancing the efficiency of green technology.
  – تعزيز فعالية التكنولوجيا الخضراء.
- Creating new employment opportunities. – خلق فرص عمل جديدة.
- Improving the quality of life. – تحسين جودة الحياة.



integration	اندماج / ربط	opportunities	فرص	quality	جودة	speeding	تسريع
harmful emissions	انبعاثات الضارة	reducing	خفض	sustainability	الاستدامة		

Stop here !



استمع إلى
ملخص الدرس

نقاط هامة وعبارات استرشادية تمكنك من تلخيص وإتقان الدرس.

Lesson Summary

- Digital transformation is a national project that links all government agencies to each other through an information environment.

  - التحول الرقمى هو مشروع قومى يربط كل الجهات الحكومية ببعضها البعض من خلال بيئة معلوماتية.

- Citizens can obtain all their services through the internet and mobile applications.

  - يمكن للمواطن الحصول على كل خدماته من خلال الإنترنت وتطبيقات الموبايل.

- Digital transformation is crucial for organizations and businesses.

  - يعد التحول الرقمى هام لكثير من المؤسسات والشركات.

- Digital transformation tools are accessible via managing workflows, electronic payment methods, E-learning resources, collaborative and communicative.

  - أدوات التحول الرقمى تتوفر من خلال أدوات إدارة سير العمل وأدوات الدفع الإلكترونى والتعليم الإلكترونى وأدوات التعاون والتواصل.

- In order to access any digital services or products, an email address is required.

  للحصول على أى من خدمات أو منتجات رقمية يجب أن يكون لديك بريد إلكترونى.

- Green technology and digital transformation are closely related.

  ترتبط التكنولوجيا الخضراء بالتحول الرقمى ارتباطًا وثيقًا.

- Smart energy grids, precision farming and smart buildings are examples of the integration of green technology and digital transformation applications.

  تعد شبكات الطاقة الذكية والزراعة الدقيقة المبانى الذكية أحد تطبيقات التكنولوجيا الخضراء والتحول الرقمى معًا.

How to deal with the exam

كلمات و عبارات إسترشادية تساعدك على حل أسئلة الامتحان.

Topic	Guiding words	Exam items
Digital transformation and its importance in our daily lives	Digital Egypt Platform	Digital Egypt Platform is a government electronic portal th provides many electronic services to citizens.
	meeza-convenience	Electronic payment cards meeza offer convenience by providing easy, fast, and secure electronic payment metho
	INSTAPAY - bank account	INSTAPAY is an electronic payment via bank account or electronic wallet.
	Zoom-Google Meet	Zoom and Google Meet are video conferencing application
	Green technology - digital transformation	Green technology and digital transformation are closely related.

General Exercises

On Lesson Two



يمكنك حل التدريب وتصويبه إلكترونيا

▸ If you got 🔴 you need to revise the lesson again.

ممتاز 🔵 جيد جدا 🟢 جيد 🟡 غير جيد 🔴

قم بتقييم نفسك بالعلامات الموضحة وإذا حصلت على 🔴 (غير جيد) قم بمراجعة الدرس مرة أخرى من الصفحة السابقة.

El-Moasser Exercises

1 Choose the correct answer from a, b, c or d.

1. Egypt contributes to the field of digital transformation by all of the following except ....
   a. providing digital services to citizens
   b. encouraging the use of technology in education
   c. increasing energy using
   d. supporting institutions and companies
2. .... is one of the advantages of using digital services.
   a. Saving time and effort
   b. Difficulty in meeting others
   c. Difficulty of communication
   d. Increasing the costs
3. All of the following are advantages of using the Digital Egypt Platform except ....
   a. accessing to the government services
   b. electronic payment
   c. innovations and creativity
   d. communication weakness between the citizens and the digital service providers
4. .... is an application that allows sending and receiving money through a bank account or a digital wallet.
   a. INSTAPAY
   b. Egyptian Knowledge Bank
   c. Digital Egypt Platform
   d. Zoom
5. All of the following are examples of the integration of green technology and digital transformation except ....
   a. smart energy grids
   b. precision farming
   c. using old transportation
   d. smart transportation

2 Complete the following sentences.

1. .... is the combination of digital technology into all aspects of business.
2. Digital transformation helps improve .... and productivity.
3. Digital transformation enhances .... and development in institutions and companies.
4. The .... Platform helps to access the electronic services easily.

3 Put (✓) or (×) for the following sentences.

1. Digital transformation does not help to improve innovation. ( )
2. The Digital Egypt Platform helps to access government services easily. ( )
3. Digital transformation helps to improve communication with others. ( )
4. Bills payment is one of the services provided by the Digital Egypt Platform. ( )
5. Digital transformation can't help you to make decisions. ( )
6. Digital transformation reduces the quality of life. ( )

Student's Book Exercises

1 Choose the correct answer from a, b, c or d.

1. When using the Egypt Digital Portal, it is considered as one of the ....
   a. piracy forms
   b. digital transformation tools
   c. irresponsible websites usage
   d. electronic assault forms
2. Electronic payment applications can be used within the app ....
   a. INSTAPAY
   b. Google Meet
   c. WhatsApp
   d. Email
3. .... is a common characteristic shared by green technology and digital transformation.
   a. Challenges in digital communication between citizens and government services offered by relevant ministries
   b. Slow processes for acquiring digital services
   c. Access digital services quickly and securely
   d. Ease of hacking data on the Internet
4. Green technology and digital transformation tools work on ....
   a. increasing environmental resource pollution
   b. reducing harm to the surrounding environment
   c. increasing the rate of raw materials consumption
   d. raising the costs of digital services

2 Think and search :

- The Egyptian state has provided many digital services that help citizens accomplish their tasks. Search the Internet for the most important digital services that you can use to help you in life.

....

3 Think and discuss with your group :

- A family member has asked you to help him obtain a violation certificate for his car. Determine the procedures that must be followed to obtain a violation certificate.

....

قم بتلوين الدائرة باللون
المناسب لمستواك. ◯



Revision
on Lessons 1 & 2

مراجعة عامة على الدرسين الأول والثانى فى ورقة واحدة



Lesson 1 : Green Technology

1 Green Technology

- It is based on technological tools that help protect the environment, rather than causing harm, and optimize the use of its resources.
- **Sensors usages**

1. Regulating temperatures
2. Operating the lights through various methods
3. Detecting smoke from fires

2 Fields of using green technology

- **Green technology is used in various aspects of life, such as :**

1. Renewable Energy
2. Rationalization of energy consumption and responsible utilization
3. Waste recycling
4. Water treatment

Lesson 2 : Digital transformation and its importance in our daily lives

1 Digital Transformation

- The combination of digital technology into all aspects of business to enhance workflow efficiency, lower costs, and innovate products and services.
- **Digital transformation tools.**

1. Tools for managing workflows
2. Electronic payment methods
3. Collaborative and communicative tools
4. E-learning resources
5. Artificial intelligence (AI) and machine learning technologies
6. Cloud computing technologies
7. Cybersecurity solutions

2 The importance of digital transformation

1. Enhancing efficiency and productivity
2. Enhancing the quality of services and products offered to customers
3. Enhancing sales and revenues
4. Innovation and creativity
5. Sustaining competitiveness
6. Enhancing decision-making
7. Minimizing energy and resource consumption
8. Creating new employment opportunities

- **Digital Egypt Platform**

It is a governmental digital platform offering various electronic services to citizens, including bill payments for electricity and water, ... etc.

Accumulative Test

On Lessons 1&2

اختبار تراكمى على الدرسين الأول والثانى

1 Choose the correct answer from a, b, c or d.

1. .... is one of the advantages of using electric cars.
   a. Reducing pollution
   b. Increasing energy use
   c. Reducing the usage of fossil fuels
   d. Both (a) &(c)
2. .... is a government electronic portal that provides many electronic services.
   a. The Digital Egypt Platform
   b. Zoom
   c. INSTAPAY
   d. Google Meet
3. .... is one of the most important common characteristics between green technology and digital transformation.
   a. Reducing harmful emissions
   b. Increasing energy use
   c. Dependence on petroleum energy
   d. Increasing the greenhouse effect
4. Meeza payment cards are used for ....
   a. accessing government services
   b. providing easy and fast payment methods
   c. sending information
   d. watching movies
5. .... are devices that work to rationalize consumption and rely on the idea of the presence of objects near them.
   a. Sensors
   b. Computers
   c. Electronic cars
   d. E-mail

2 Put (✓) or (×) for the following sentences.

1. Green technology helps to reduce carbon emissions. (
2. Electric cars contribute to increasing pollution. (
3. Recycling waste materials helps preserve the environment. (
4. Digital transformation is the combination of digital technology into all aspects of business. (
5. Digital transformation helps to increase efficiency and productivity. (

يمكنك المراجعة باستمرار (تراكمية)
من خلال الصفحة السابقة.

LESSON 3

Operating Systems



Operating System (OS) نظام التشغيل

- It is an interface between the user, hardware and software.

  إنه واجهة بين المستخدم والأجهزة والبرمجيات.

- It is responsible for managing the hardware components and running all software.

  مسؤول عن إدارة المكونات المادية وتشغيل جميع البرمجيات.

- It is responsible for helping the user accomplish their various tasks on the computer easily and smoothly.

  مسئول عن مساعدة المستخدم في إنجاز مهامه المختلفة على جهاز الكمبيوتر بسهولة ويسر.



interface	واجهه	components	مكونات	accomplish	ينجز
software	برمجيات	responsible	مسئول	tasks	مهام



Activity

Dear student, with the help of your teacher and in cooperation with your colleague search the Internet for the key functions of the operating system for digital devices (computers - mobile phones).

The key functions of the operating system أهم وظائف أنظمة التشغيل

The key functions of operating system
أهم وظائف نظام التشغيل

- File system management
  إدارة نظام الملفات
- Hardware components management
  إدارة المكونات المادية
- Memory management
  إدارة الذاكرة
- Security and protection
  الأمن والحماية
- User interface
  واجهة للمستخدم

management	إدارة	functions	وظائف	hardware components	مكونات مادية
memory	ذاكرة	security	أمن	protection	

Pop Quiz

▸ **Choose the correct answer from a, b, c or d.**

1. An operating system manages hardware and .... components.
   a. software b. maps c. GPS d. emails
2. The operating system has many functions such as ....
   a. security b. memory management
   c. managing the hardware components d. all of them

Modern electronic devices, smart devices, and operating systems used in our daily lives
الأجهزة الالكترونية والأجهزة الذكية الحديثة، وأنظمة التشغيل المستخدمة فى حياتنا.

* Operating systems are necessary for the operating and managing a variety of devices.
– تعتبر أنظمة التشغيل ضرورية لتشغيل وإدارة الأجهزة المختلفة.

Such as مثل

Modern electronic devices
الأجهزة الإلكترونية الحديثة



Modern smart devices
الأجهزة الذكية الحديثة



Examples of modern electronic devices and smart devices, along with the operating systems used
بعض الأمثلة على الأجهزة الإلكترونية والاجهزة الذكية الحديثة وأنظمة التشغيل المستخدمة.

1 Personal computers (PCs) (PCs) ١. أجهزة الكمبيوتر الشخصية

* Desktop and laptop computers use operating systems like :
– تستخدم أجهزة الكمبيوتر المكتبية وأجهزة الكمبيوتر المحمولة أنظمة تشغيل مثل :

- Microsoft Windows
- macOS
- different distributions of Linux — توزيعات مختلفة فى Linux

Windows

necessary	ضرورى	electronic	الكترونى
devices	أجهزة	distribution	توزيع

2 Mobile Devices ٢. الأجهزة المحمولة

* Smartphones and tablets depend on operating systems like :

- تعتمد الهواتف الذكية والأجهزة اللوحية على أنظمة التشغيل مثل :

- Apple's iOS — iOS من شركة Apple
- Google's Android operating system — نظام التشغيل Android من شركة Google
- Alternative mobile operating systems — أنظمة تشغيل الأجهزة المحمولة الأخرى

3 Servers ٣. أجهزة الخوادم

* Servers use operating systems like :

- تستخدم الخوادم أنظمة التشغيل مثل :



- Linux operating system (with its diverse distributions)
  - نظام التشغيل Linux (بتوزيعاته المختلفة)
- Microsoft Windows Server operating system
  - نظام التشغيل Microsoft Windows Server
- Specialized server operating systems are used to manage network resources and deliver a range of services
  - أنظمة تشغيل الخوادم المتخصصة الأخرى لإدارة موارد الشبكة وتقديم خدماتها المختلفة

4 Gaming Consoles ٤. وحدات تحكم الألعاب

PlayStation | Xbox | Nintendo switch



* Gaming consoles feature exclusive operating systems tailored for gaming and multimedia purposes

- تتمتع هذه الوحدات بأنظمة تشغيل خاصة بها مُحسنة لتطبيقات الألعاب والوسائط المتعددة.

5 Smart TVs ٥. أجهزة التلفزيون الذكية

* Smart TVs operate on various operating systems such as (Android TV, Tizen, webOS) and others to offer smart advantages.

- تعمل أجهزة التلفزيون الذكية على أنظمة تشغيل مثل : (webOS و Tizen و Android TV)وغيرهم لتوفير ميزات ذكية .



Like
- streaming services — خدمات البث
- applications — التطبيقات
- internet connectivity — الاتصال بالانترنت علي أجهزة التليفزيون الذكية

specialized	متخصص	exclusive	مخصص
manage	يدير	purposes	أغراض

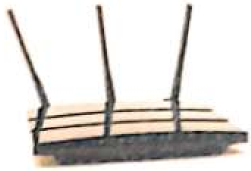
6 Wearable Devices ٦. الأجهزة القابلة للارتداء



* Wearable devices like smartwatches and fitness trackers use operating systems tailored to their distinct functions and needs.

- الأجهزة القابلة للإرتداء مثل : (الساعات الذكية - أجهزة تتبع اللياقة البدنية) تستخدم أجهزتها أنظمة تشغيل مصممة خصيصًا لوظائفها المحددة ومتطلبات تلك الأجهزة.

7 Network Devices ٧. أجهزة الشبكة



* Routers, switches, and other network equipment use operating systems for network management, settings, and security advantages.

- تستخدم أجهزة التوجيه (Routers) والمحولات (Switches) ومعدات الشبكة الأخرى أنظمة التشغيل لإدارة الشبكة والإعدادات ومميزات الأمان بالشبكة.

Learn : Operating systems are used in some smart devices :



Tizen



Windows



iOS



Linux

There are various operating systems used in

يوجد أنظمة تشغيل أخري تستخدم في

modern cars and vehicles



ATMs



factories



advantages	مميزات	fitness	لياقة بدنية	tailored	مصمم / خصيصًا
wearable	قابلة للارتداء	smartwatches	الساعات الذكية	functions	وظائف

1 Automotive Systems أنظمة السيارات



* Modern cars and vehicles often have operating systems to control various functions such as :

- غالبًا ما تحتوى السيارات والمركبات الحديثة على أنظمة تشغيل للتحكم في الوظائف المختلفة مثل:

- infotainment — أنظمة المعلومات
- navigation — الترفيه والملاحة
- driver assistance technologies while driving and controlling the vehicle. — تقنيات مساعدة السائق أثناء قيادة السيارة والتحكم بها.

2 Embedded Systems الأنظمة المدمجة

* Operating systems are used in embedded systems like: تستخدم أنظمة التشغيل في الأنظمة المدمجة مثل:

- Automated Teller Machine (ATM) — أجهزة الصراف الآلى
- Point of Sale Terminal — محطات نقاط البيع





Point of sale terminals are electronic devices that enable customers to pay for purchased products by deducting the price from their bank account instead of using cash.

- محطات نقاط البيع عبارة عن جهاز الكترونى يستطيع من خلاله العميل دفع ثمن المنتجات التي قام بشرائها، ليتم خصم ثمن تلك المنتجات من **حسابه البنكي** بدلاً من أن يقوم بدفع ثمنها **نقدًا**.

3 Industrial Control Systems (ICS) أنظمة التحكم الصناعية

It is a broad term that includes : هو مصطلح واسع يشمل:

- many industrial control systems
  العديد من أنظمة التحكم الصناعية
- devices used in industrial facilities
  العديد من الأجهزة التي تستخدم في المنشآت الصناعية

* To control the performance of machines and industrial processes.

تحكم فى أداء الآلات والعمليات الصناعية.

vehicles	مركبات	embedded	مدمج	customers	
assistance	مساعدة	enable	يمكن	purchased products	ت التى تم شرائها
control	يتحكم				

▸ Industrial control systems work on the following :
- تعمل أنظمة التحكم الصناعية على التالى :

Control and monitor the progress of industrial processes ضبط ومراقبة سير العمليات الصناعية	Which increases factory productivity and improves the quality of manufactured products. - مما يزيد من إنتاجية المصانع ويحسن جودة المنتجات المُصنعة.
Provide a safe environment for health and operational safety. توفير بيئة آمنة للصحة والسلامة التشغيلية	by reducing exposure to hazardous materials or environments such as : - من خلال تقليل التعرض للمواد والبيئات الخطرة مثل : • chemical plants • المصانع الكيماوية • water and waste treatment centers • مراكز معالجة المياه والنفايات • nuclear power plants • منشآت الطاقة النووية • refineries • مصافى التكرير
Industrial control systems are used in most industrial sectors. تستخدم أنظمة التحكم الصناعية في غالبية قطاعات الصناعة	**Such as :** مثل : • energy, transportation • مجال الطاقة والنقل • food and petrochemical production • الانتاج الغذائى والبتروكيميائى • electronics, medical industries, and many other industries • الصناعات الالكترونية والطبية والعديد من الصناعات الأخرى

Note

A wide range of devices that depend on **operating systems** to manage the resources of modern electronic devices and smart devices → **to run applications** → **provide users with a platform to interact with the device.**

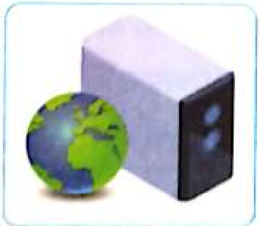
* مجموعة واسعة من الأجهزة التى تعتمد على **أنظمة تشغيل** لإدارة موارد الأجهزة الإلكترونية والأجهزة الذكية الحديثة ← **لتشغيل التطبيقات** ← **تزويد المستخدمين بمنصة للتفاعل مع الجهاز.**

Activity

Dear student, with the help of your teacher and in cooperation with your colleagues, choose the suitable operating system for the following smart devices

(Windows - Tizen - iOS - Linux)


....


....


....


....

industrial	صناعى	process	عملية	operational safety	السلامة التشغيلية	provide	يمد / يزود
monitor	يراقب / مراقبة	productivity	انتاجية	depend on	يعتمد على	platform	منصة

▶ **Startup screen of an operating system.** الشاشة الافتتاحية لنظام التشغيل.

Desktop سطح المكتب

* **Desktop** is the operating system startup screen. سطح المكتب هو الشاشة الافتتاحية لنظام التشغيل .
* It includes a set of symbols called Icons.
  - يتضمن سطح المكتب مجموعة من الرموز تسمى أيقونات.
* Icons appear arranged in a specific order over a background.
  - تظهر الأيقونات مرتبة بشكل معين فوق خلفية .
* Background is an image or color that the user selects.
  - الخلفية هى عبارة عن صورة أو لون يقوم المستخدم بتحديدهم.



Bars contain تحتوى الأشرطة على

icons that symbolize software installed on the operating system. أيقونات ترمز لبرمجيات مثبتة علي نظام التشغيل.	Other icons to adjust some system settings such as date, time, sound settings and network. أيقونات أخري لضبط بعض اعدادات النظام مثل : التاريخ والوقت واعدادت الصوت والشبكة.

Note

- The startup screen varies for different operating systems.
اختلاف الشاشة الافتتاحية لأنظمة التشغيل المختلفة.
- The startup screen varies for the operating system according to the version of the operating system. اختلاف الشاشة الافتتاحية لنظام التشغيل حسب إصدار نظام التشغيل.

Pop Quiz

▶ **Choose the correct answer from a, b, c or d.**

1. The operating system of "Apple" is ....
   a. iOS b. Android c. Windows d. ATM
2. Desktop and laptop computers use different distributions of ".............. ".
   a. Apple's iOS b. Smart TVs c. Routers d. Linux

startup screen شاشة افتتاحية | symbols رموز | icons أيقونات

Stop here !



استمع إلى
ملخص الدرس

نقاط هامة وعبارات استرشادية تمكنك من تلخيص وإتقان الدرس.

Lesson Summary

- The operating system is an interface between the user, hardware and software.

– نظام التشغيل هو واجهة بين المستخدم والأجهزة والبرمجيات.

- The key functions of the operating system are managing file system, security and protection and memory management.

– من أهم وظائف نظام التشغيل هى إدارة نظام الملفات والأمن والحماية وإدارة الذاكرة.

- Operating systems are necessary for the operating and managing a variety of modern electronic and smart devices.

–تعتبر أنظمة التشغيل ضرورية لتشغيل وإدارة الأجهزة الإلكترونية والأجهزة الذكية الحديثة.

- Gaming consoles feature exclusive operating systems tailored for gaming and multimedia purposes.

– تتمتع وحدات تحكم الألعاب بأنظمة تشغيل خاصة بها مُحسنة لتطبيقات الألعاب والوسائط المتعددة.

- Wearable devices use operating systems tailored to their distinct functions and needs.

– تستخدم الأجهزة القابلة للارتداء على أنظمة تشغيل مصممة خصيصًا لوظائفها المحددة ومتطلبات الأجهزة.

- Background is an image or color that the user selects.

– الخلفية هى عبارة عن صورة أو لون يقوم المستخدم بتحديدهم.

- Bars contain icons that symbolize software installed on the operating system.

– الأشرطة تحتوى على أيقونات ترمز لبرمجيات مثبتة على نظام التشغيل.

How to deal with the exam

كلمات و عبارات إسترشادية تساعدك على حل أسئلة الامتحان.

Topic	Guiding words	Exam items
Operating Systems	operating system - software	The operating system is responsible for managing the hardware components and running all software.
	computer - macOS	Desktop and laptop computers use operating systems like Microsoft Windows, macOS and different distribution of Linux.
	Servers - Linux	Servers use operating systems like Linux and Microsoft Windows Server.
	smart TVs - Tizen	Smart TVs operate on various operating systems such as Android TV, Tizen, webOS, and others to offer smart advantages.
	PlayStation - Xbox	PlayStation and Xbox are gaming consoles.
	symbols - icons	The operating system startup screen (desktop) includes a set of symbols called Icons.

General Exercises

On Lesson Three

يمكنك حل التدريب وتصويبه إلكترونيًا



▶ If you got 🔴 you need to revise the lesson again.

ممتاز 🔵 جيد جدا 🟢 جيد 🟡 غير جيد 🔴

قم بتقييم نفسك بالعلامات الموضحة وإذا حصلت على 🔴 (غير جيد) قم بمراجعة الدرس مرة أخرى من الصفحة السابقة.

El-Moasser Exercises

1 Choose the correct answer from a, b, c or d.

1. .... is one of the examples of operating systems in embedded systems.
   a. Modern b. ATM c. Converter d. Router
2. .... are characterized by special operating systems optimized for gaming and multimedia applications.
   a. Servers b. Embedded systems
   c. Gaming consoles d. Converters
3. All of the following are functions performed by the operating system except ....
   a. managing hardware components b. managing the file system
   c. taking photos d. managing memory
4. Modern cars and vehicles contain operating systems to control various functions such as ....
   a. information systems b. driver assistance technologies
   c. (a) and (b) d. converters
5. Smartphones and tablets rely on .... operating systems.
   a. Windows b. macOS c. Linux d. Android or ios
6. .... systems are used in ATMs.
   a. Windows b. Embedded c. Linux d. Scanners
7. All of the following are examples of operating systems except ....
   a. Windows b. Linux c. macOS d. PHP
8. Industrial control systems help to ....
   a. adjust and monitor the progress of industrial processes b. pay bills
   c. manage networks d. install program

2 Complete the following sentences.

1. The operating system is an interface between .... , ... and software.
2. The operating system can be responsible for running all software and managing ....
3. Server use .... like Microsoft windows server operating system.
4. .... contains icons that represent software installed on the operating system.
5. Industrial control systems control .... and ....

3 Put (✓) or (x) for the following sentences.

1. Tizen and webOS are examples of smart cell phones. ( )
2. Routers and switches use operating systems for network management. ( )
3. ATM is an example for automotive systems. ( )
4. Gaming consoles are examples of operating systems tailored for gaming and multimedia purposes. ( )
5. ICS stands for industrial control systems. ( )

Student's Book Exercises

1 Choose the correct answer from a, b, c or d.

1. The .... software is responsible for managing the hardware components and running all other software.
   a. Antivirus b. Operating systems
   c. Word processing d. Painter
2. Servers use operating systems like ....
   a. Android b. Tizen c. Linux d. macOS
3. Operating systems like Android TV, Tizen, webOS, etc. are used with .... devices.
   a. smart TV b. server c. print d. networking
4. .... devices are network equipment that require an operating system to operate.
   a. Television b. Printing c. Smartwatches d. Routers
5. Most modern cars and vehicles have operating systems to control various functions such as ....
   a. Information and navigation systems b. Point of sale
   c. ATMs d. Printing
6. .... is an electronic device through which the customer can pay for the products he has purchased.
   a. POS Terminals b. ATMs
   c. Industrial control system d. Smartwatch

2 Put (✓) or (x) for the following sentences.

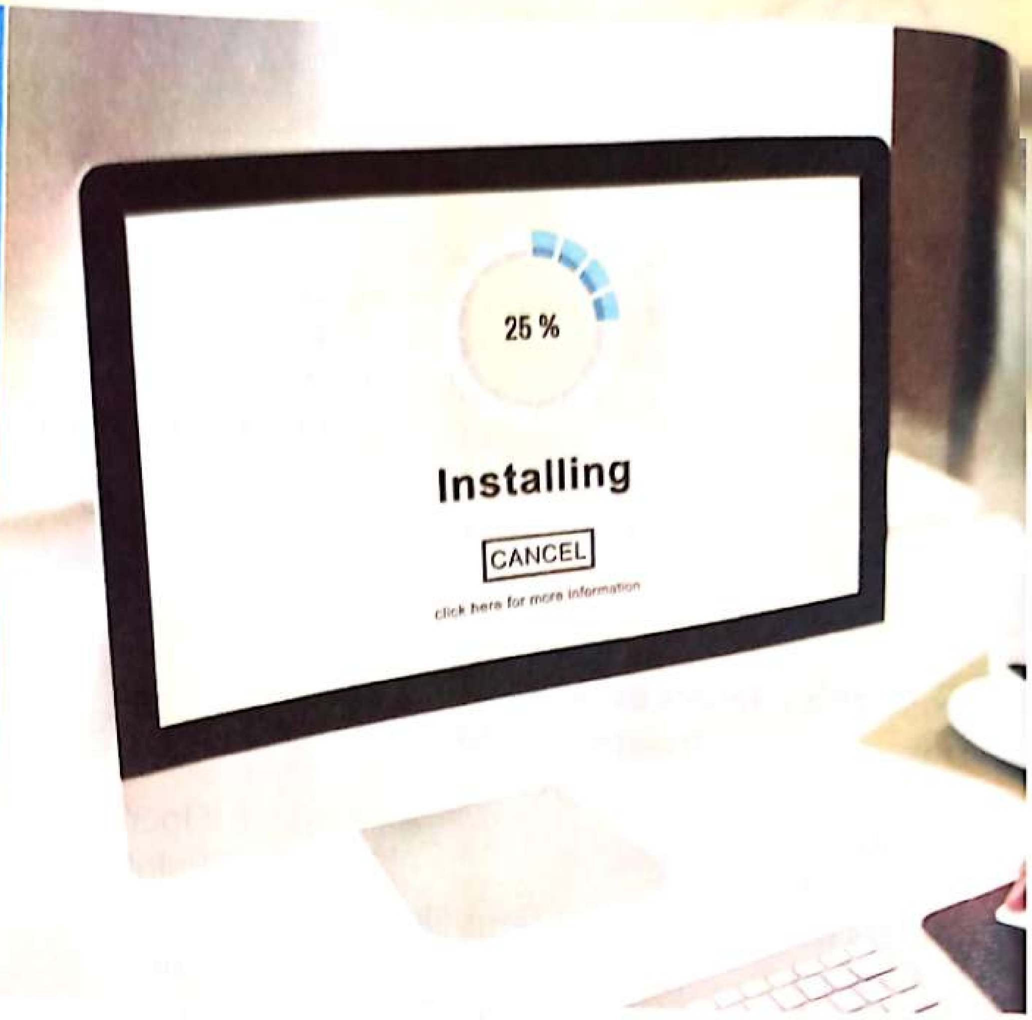
1. A word processing program manages the computer hardware components. ( )
2. Device security and protection are inherent features of the operating system. ( )
3. Desktop computers utilize operating systems like Microsoft Windows. ( )
4. Smart TVs operate on platforms like Android TV and Tizen. ( )
5. Using wearable devices like smartwatches and fitness trackers does not necessitate an operating system. ( )



قم بتلوين الدائرة باللون
المناسب لمستواك. ◯

LESSON 4

Installation and removal of software and digital peripherals



If the operating system doesn't have the program you need, you can get the program

إذا لم يكن نظام التشغيل مزودًا بالبرنامج الذى تحتاجه، فيمكنك الحصول على البرنامج إما

- by downloading the program online
  من خلال التنزيل عبر الإنترنت

Or أو

- from a storage unit
  من أحد وحدات التخزين

* You can then install the program on your computer to use it.

ويمكنك بعد ذلك تثبيت البرنامج على جهاز الكمبيوتر الخاص بك ليمكنك استخدامه.

* How you start the installation process —depends→ on the form in which the program comes.

تعتمد كيفية بدء عملية التثبيت ← على الهيئة التى يأتى عليها البرنامج.

1

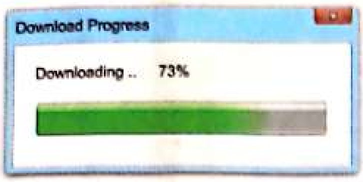


- If you purchased the program, the program comes on a CD or DVD → use this CD to install the program.

إذا قمت بشراء البرنامج، فإن البرنامج يأتى على قرص مضغوط أو قرص DVD ← تستخدم هذا القرص لتثبيت البرنامج.

operating system	نظام التشغيل	download	تحميل / تنزيل	purchase	يشترى
program	برنامج	install	تثبيت	CD	قرص مضغوط

2



- If you downloaded the program from the Internet, the program is in the form of a file, and this file is used to install the program.

إذا قمت بتنزيل البرنامج من الإنترنت، يأتى البرنامج على هيئة ملف ونستخدم هذا الملف لتثبيت البرنامج.

First Installing the program from a CD or DVD تثبيت البرنامج من قرص مضغوط أو قرص DVD

1. Insert the software disc into your computer CD or DVD drive. The AutoPlays dialog box will appear.

- أدخل قرص البرنامج فى محرك الأقراص المضغوطة أو أقراص **DVD** بجهاز الكمبيوتر الخاص بك. يظهر مربع حوار التشغيل التلقائى.

- The following screen displays one of the processes that takes place in Windows 7.

- توضح الشاشة التالية أحد المعالجات التى تحدث خلال نظام تشغيل **Windows 7**.



2. Click Run **SETUP.EXE**, where **SETUP.EXE** is usually the name of the installation program.

- انقر فوق **Run SETUP.EXE**، حيث **SETUP.EXE** عادةً هو اسم برنامج التثبيت.

3. Follow to the installation instructions provided by the software.

- اتبع تعليمات التثبيت التى يوفرها البرنامج.

Important Note :

Installation procedures differ from one program to another.

تختلف خطوات التثبيت من برنامج لآخر.

Second Installing the program from an Internet-downloaded file

تثبيت البرنامج من ملف تم تنزيله من الإنترنت

1. Use the "This PC" icon to access the downloaded file.

- استخدم أيقونة جهاز الكمبيوتر "This PC" للوصول إلى الملف الذى تم تنزيله.

2. Double-clicking the file starts up the installer.

- انقر نقرًا مزدوجًا فوق الملف ليبدأ عمل برنامج التثبيت.

Important Note :

The downloaded file may be compressed. You need to unzip it before accessing the file and selecting the **SETUP.EXE** icon.

الملف الذى قمت بتنزيله قد يكون ملف أو ملفات مضغوطة. فعليك أولًا فك الملف المضغوط لكى تتمكن من التعامل مع الملف واختيار أيقونة **SETUP.EXE**.

file	ملف	display	توضح / تعرض	procedures	اجراءات / خطوات
screen	شاشة	instructions	تعليمات	access	يصل

Third Installing the program from a compressed file تثبيت البرنامج من ملف مضغوط

1. Extract the compressed files.
   - قم بفك ضغط الملفات.
2. Next, double-click the installation file.
   - ثم انقر نقرًا مزدوجًا فوق ملف التثبيت.
3. Follow the installation instructions provided by the software.
   - اتبع تعليمات التثبيت التي يوفرها البرنامج.



smadav2023rev15 10.rar — ملف مضغوط

smadav2023rev15 10.exe — ملف التثبيت بعد فك الضغط

Activity

Dear student : In cooperation with your colleagues do the following :

- Download one of the free antivirus programs from the internet.
- Follow the steps to install the program using the installation file.

Remove or uninstall a program ازالة أو إلغاء تثبيت برنامج

* Uninstalling a program means that you delete all the files of the program from your computer.

- الغاء تثبيت البرامج تعنى حذف كافة ملفات البرنامج من جهاز الكمبيوتر الخاص بك.

There are two methods to remove or uninstall the program
هناك طريقتين لإزالة أو لإلغاء تثبيت البرنامج

- **The program does this itself.** البرنامج نفسه يقوم بذلك
  - many programs come with their own removal or uninstallation command.
  - تأتى العديد من البرامج مصحوبة بأمر إزالة / إلغاء التثبيت الخاص بها
- **The operating system** نظام التشغيل
  - through the control panel
  - من خلال لوحة التحكم

Important Note :

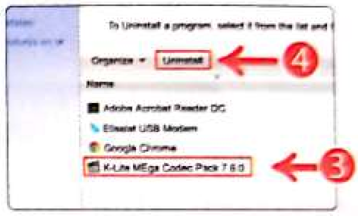
* Removing unused programs saves disk storage space and speeds up and eases the use of the device.

– تؤدى إزالة البرامج غير المستخدمة إلى توفير المساحة التخزينية على القرص و سرعة وسهولة استخدام الجهاز.

compressed	مضغوط	delete / remove	يحذف	storage space	مساحة التخزين	extract

Steps for uninstalling a program on the device خطوات إزالة برنامج مثبت





1. Access the Control Panel window. 

- قم بفتح نافذة لوحة التحكم Control Panel.

2. Clicking on "Uninstall a program" will prompt the window displaying installed programs to appear.

- انقر فوق Uninstall a program فتظهر نافذة البرامج المثبتة.

3. Click on the program you wish to uninstall.

- انقر فوق البرنامج الذى تريد إلغاء تثبيته.

4. Then select Uninstall.

- ثم انقر فوق Uninstall.

Pop Quiz

▶ **Choose the correct answer from a, b, c or d.**

1. If you purchased the program, it comes on a .... or DVD form.
   a. CD   b. file   c. picture   d. video
2. .... of unused programs provides a space on the disk and speed up the device.
   a. Installing   b. Adding   c. Uninstalling   d. Downloading

Setting up and Configuring Hardware إعداد وتثبيت الأجهزة

Learn :

→ Operating systems support many devices attached to the computer such as printers, webcams, scanners in a way that varies depending on the type of operating system.

← تدعم نظم التشغيل العديد من الأجهزة الملحقة للكمبيوتر مثل الطابعة، كاميرا الويب، الماسح الضوئى، بشكل يختلف حسب نوع نظام التشغيل.

→ the operating system automatically detects the new attached device, and the operating system installs the correct "**Driver**" for the attached device, so that you can use the new attached device with its full features.

← يكتشف نظام التشغيل الجهاز الجديد الملحق تلقائيًا ويقوم بتثبيت برنامج التشغيل [**Driver**] الصحيح حتى تتمكن من استخدام الجهاز الملحق ومجموعة بمميزاته الكاملة.

control panel	لوحة التحكم	click	ينقر	support	يدعم	automatically	تلقائيًا
attached	ملحق / مرفق	features	مميزات / خصائص	devices	أجهزة	vary	يختلف

Installing a new device تثبيت جهاز جديد

New devices include a CD or DVD for setup that contains

تتضمن الأجهزة الجديدة قرصا مضغوطا CD ، DVD للإعداد يحتوى على :

- **utility programs** برامج الأدوات المساعدة
- **driver files** ملفات برامج التشغيل

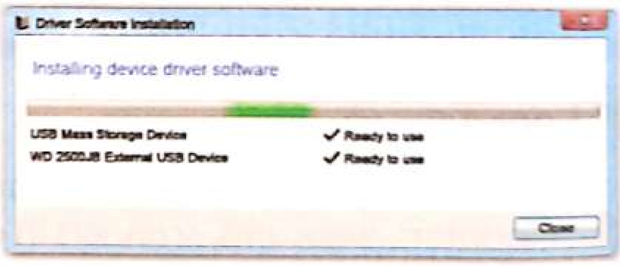
* The Setup program automatically copies the driver files and the setup information file "inf." into a dedicated folder.

- يقوم برنامج الإعداد Setup program بشكل تلقائى بنسخ ملفات برنامج التشغيل Driver وملف معلومات الإعداد (.inf) داخل مجلد مخصص لذلك.

Plug and Play Device Installation تثبيت جهاز له خاصية التثبيت والتشغيل

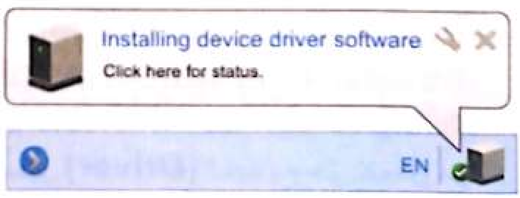
First **When the operating system includes a driver that matches the new peripheral device.** عندما يتضمن نظام التشغيل برنامج تشغيل مطابق للجهاز الملحق الجديد.

1. The operating system detects the new peripheral. - يكتشف نظام التشغيل الجهاز الملحق الجديد.
2. The operating system searches its list of drivers for the appropriate driver for the new peripheral.
   - يقوم نظام التشغيل بالبحث في قائمة برامج التشغيل [Drivers] التي لديه عن برنامج التشغيل [Driver] المناسب للجهاز الملحق الجديد.
3. If it finds a matching driver for the new peripheral, it installs the correct driver file(s).
   - فإذا عثر على برنامج تشغيل مطابق للجهاز الملحق الجديد، فإنه يقوم بتثبيت ملف أو ملفات برنامج التشغيل الصحيح والمناسب.
4. It makes other necessary adjustments to the system without any intervention from you.
   - ويقوم بإجراء تعديلات ضرورية أخرى على النظام دون الحاجة إلى أى تدخل منك.



Successful device installation message
رسالة تظهر نجاح تثبيت الجهاز

* The operating system presents a notification to the user identifying the connected devices.
   - يظهر نظام التشغيل للمستخدم رسالة بتعريف الجهاز المتصل.



رسالة تعريف الجهاز المتصل

adjustments	تعديلات	copy	ينسخ	dedicated folder	مجلد مخصص
peripheral	ملحق خارجى	list	قائمة	appropriate	مناسب

Second When the operating system does not include a matching driver for the new accessory. عندما لا يتضمن نظام التشغيل برنامج تشغيل مطابق للجهاز الملحق الجديد.

When the operating system detects that a new device has been connected with the Plug and Play feature (after connecting it to a USB port, for example).

عندما يكتشف نظام التشغيل توصيل جهاز جديد به خاصية التوصيل والتشغيل (بعد توصيله بمنفذ USB على سبيل المثال)

▶ but the operating system cannot determine the appropriate driver for this new device.

لكن لم يتمكن نظام التشغيل من تحديد برنامج تشغيل (Driver) المناسب لهذا الجهاز الجديد

▶ The operating system runs a wizard program to find the driver for the new peripheral.

يبدأ نظام التشغيل بتشغيل برنامج المعالج للعثور على برنامج التشغيل الخاص بالجهاز الملحق الجديد

▶ You can determine where the driver for the new peripheral is located, whether this program is on a CD or other storage device, ...

- يمكنك تحديد مكان وجود برنامج التشغيل للجهاز الملحق الجديد سواء كان هذا البرنامج على قرص ضوئي (CD) أو أحد وحدات التخزين الأخرى، ...

Installing the printer تثبيت الطابعة

First Install a local printer (i.e. directly connected to the computer) that supports the Plug and Play feature

ثبيت طابعة محلية (اي متصلة مباشرة بجهاز الكمبيوتر) وتدعم خاصية التوصيل والتشغيل

1. To install a local printer, it's connected to the USB port. - لتثبيت طابعة محلية يتم توصيلها بمنفذ USB.
2. The Plug and Play feature will automatically install it.

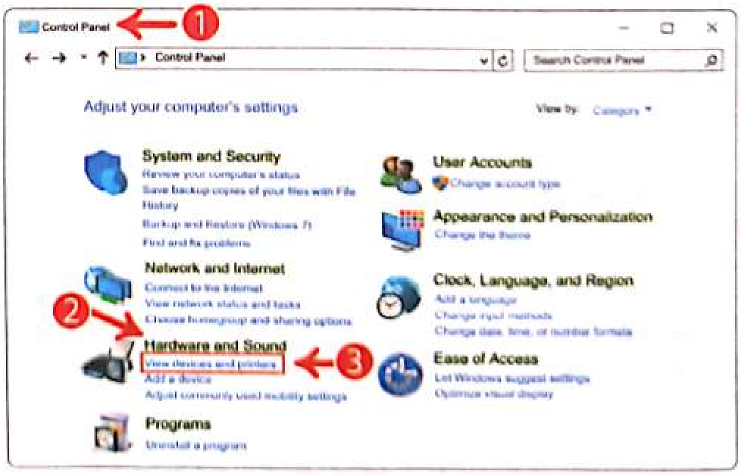
- ستقوم خاصية التوصيل والتشغيل بعملية التثبيت تلقائيًا.

Second Install a Non-Plug and Play Printer تثبيت طابعة لا تدعم خاصية التوصيل والتشغيل

1. Access the control panel.



- أفتح لوحة التحكم



منفذ	local محلي	wizard program	برنامج المعالج
المستخدم	determine يحدد	printer	طابعة

2 Select Hardware and Sound.

- اختار Hardware and sound.

3 Open Devices and Printers.

- ثم اختار الأجهزة والطابعات Devices and printers.

4 Click on "Add a printer".

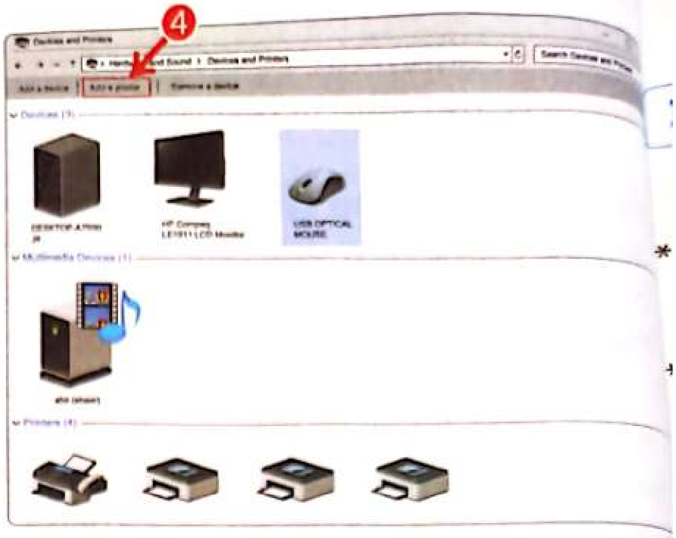
- انقر فوق "إضافة طابعة" "Add a printer".

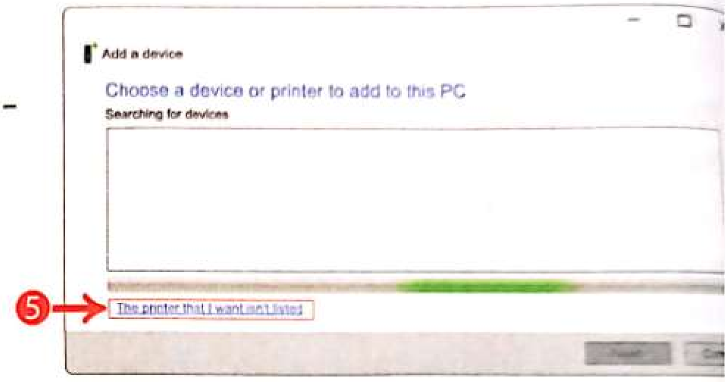
5 Press "The printer that I desire is not listed".

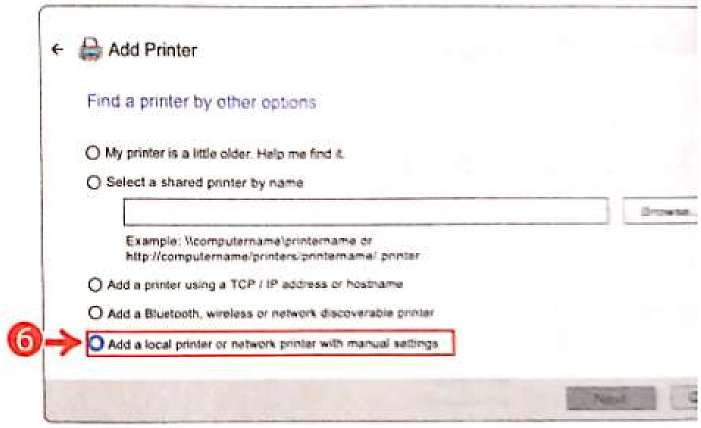
- نضغط "The printer that I desire isn't listed".

6 Select Add a local printer or network printer with manual settings.

- ثم اختر Add a local printer or network printer with manual settings







To complete the setup process

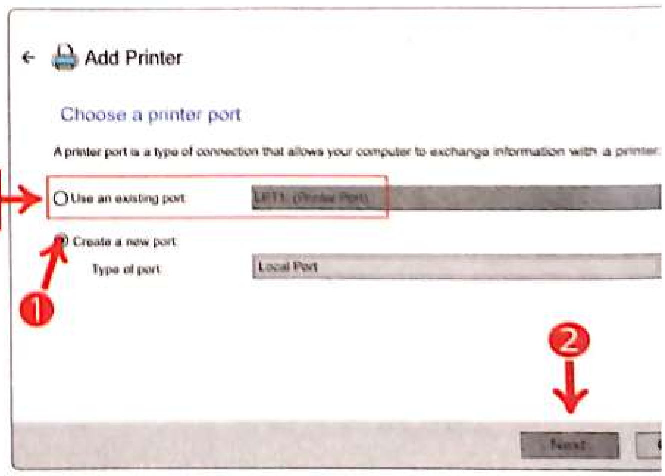
لإكمال عملية الإعداد، عليك أولا :

1. Determine which port your printer is connected to

١. حدد المنفذ الذى تتصل به الطابعة

- **for most older printers** لمعظم الطابعات القديمة: that connect to a parallel port the correct choice is the LPT1 port
  التى تتصل بمنفذ متوازى، فإن الاختيار الصحيح هو المنفذ LPT1
- **modern printers** الطابعات الحديثة: Use the USB port
  استخدم منفذ USB

Determine port or



2. Click "Next" to choose the appropriate driver. - انقر فوق **Next** لاختيار برنامج التشغيل الصحيح.

3. From the list of drivers available in the Driver Store you can choose the one that is compatible with your printer type.

- من قائمة برامج التشغيل المتوفرة فى متجر برامج التشغيل يمكنك اختيار البرنامج المتوافق مع نوع الطابعة.

select	يختار	setup process	عملية الإعداد	compatible	
connect	يتصل	parallel	متوازى	available	توفر

Installation of HP Laser Jet 5200 Series PCL5 Printer Driver

***HP LaserJet 5200 Series PCL 5* تثبيت طابعة *HP* من الطراز**

* If you don't find the driver you need

- إذا لم تجد برنامج التشغيل المطلوب

Click **Have Disk.**

فأنقر فوق قرص خاص **"Have Disk"**

* Browse your storage devices for the driver you need.

- استعرض وحدات التخزين للوصول إلى برنامج التشغيل المطلوب.

* If you don't have a driver to identify your printer,

- إذا لم يكن لديك برنامج لتعريف الطابعة

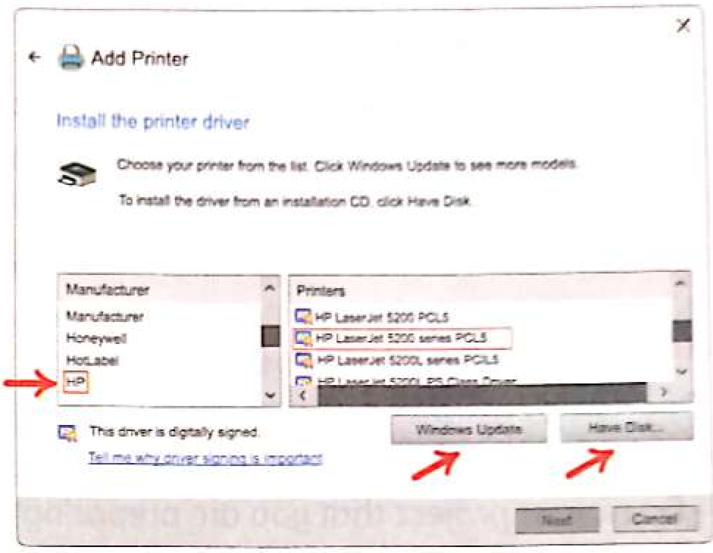
Or

* If you suspect that a newer version is available,

- إذا كنت تشك فى توفر إصدارجديد.

click Windows Update to update the list of printers.

فأنقر فوق Windows Update لتحديث قائمة الطابعات



Definition of HP laser Jet 5200 Series PCL5 printer Driver

* After the update is complete, check the list again to see if your printer model is available

- ثم بعد اكتمال التحديث : تحقق من القائمة مرة آخرى لمعرفة ما إذا كان طرازالطابعة الخاصة بك أصبح متوفرًا.

The last step in the printer setup process is الخطوة الأخيرة فى عملية إعداد الطابعة هى

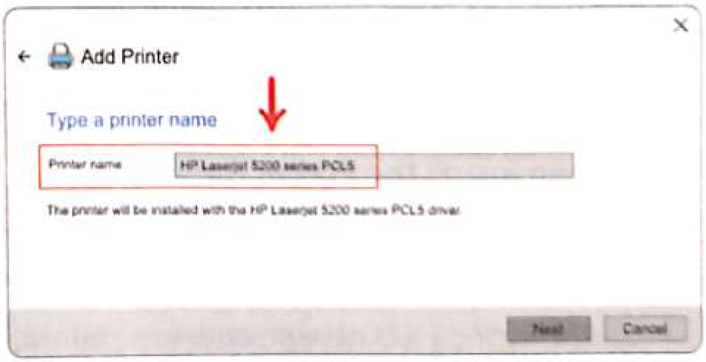
* **Give the printer a name.** - إعطاء اسم للطابعة.

- The default name usually includes the manufacturer and model of the printer.

- يتضمن الاسم الافتراضى عادة اسم الشركة المصنعة وطراز الطابعة.

- You can change this value to a more descriptive name now or later.

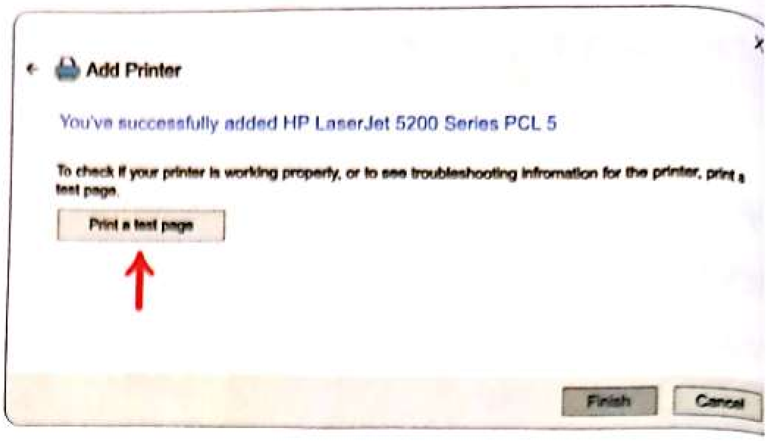
- يمكنك تغيير هذه القيمة إلى اسم أكثر وصفًا الآن أو لاحقًا.



identify	يتعرف	suspect	يشك	version	إصدار
manufacturer	الشركة المصنعة	default	افتراضى	model	طراز

* **After the printer installation process** is completed successfully, the wizard provides the ability to print a test page to ensure that the printer is working properly.

– بعد إتمام عملية تثبيت الطابعة بنجاح يوفر المعالج إمكانية طباعة صفحة اختبار للتأكد من عمل الطابعة بشكل صحيح.



Important Note :

* If the printer driver package includes a setup program → run the setup program and through it you can identify the printer within the operating system.

- إذا كانت حزمة برنامج تشغيل الطابعة تتضمن برنامج إعدادًا ← قم بتشغيل برنامج الإعداد ومن خلاله يمكنك تعريف الطابعة داخل نظام التشغيل.

Activity

Dear student, with the help of your teacher and in cooperation with your colleague do the following :

- Does your project that you are preparing and setting up need a webcam, a scanner, or any new peripheral device you want to install on your computer ?
- How you can connect the new peripheral device and follow the previous steps to install it on your computer.

Pop Quiz

▶ **Choose the correct answer from a, b, c or d.**

1. We use .... to install devices easily.
   a. Video calls b. Animation c. Antivirus d. Plug and Play
2. You can install the printer through ....
   a. USB b. CD c. DVD d. GPR

successfully بنجاح ensure يضمن / يتأكد

Stop here !



نقاط هامة وعبارات استرشادية تمكنك من تلخيص وإتقان الدرس.

استمع إلى ملخص الدرس

Lesson Summary

- If the operating system does not have the program you need, you can get the program either from a storage unit or by downloading the program online.

– إذا لم يكن نظام التشغيل مزودًا بالبرنامج الذى تحتاجه، فيمكنك الحصول على البرنامج أما من أحد وحدات التخزين أو من خلال التنزيل عبر الإنترنت.

- How you start the installation process depends on the form in which the program comes.

– تعتمد كيفية بدء عملية التثبيت على الهيئة التى يأتى عليها البرنامج.

- Uninstalling a program means that you delete all the files of the program from your computer.

– إلغاء تثبيت برنامج هو حذف كافة ملفات البرنامج من جهاز الكمبيوتر الخاص بك.

- Removing unused programs saves disk storage space and eases the use of the device.

– تؤدى إزالة البرامج غير المستخدمة إلى توفير مساحة على القرص وتجعل التنقل فى قائمة البرامج أسهل.

- Operating systems support many devices attached to the computer in a way that varies depending on the type of operating system.

– تدعم نظم التشغيل العديد من الأجهزة الملحقة للكمبيوتر بشكل يختلف حسب نوع نظام التشغيل.

- New devices include a CD or DVD for setup that contains driver files and utility programs.

– تتضمن الأجهزة الجديدة قرصًا مضغوطًا للإعداد يحتوى على ملفات برامج التشغيل وبرامج الأدوات المساعدة.

How to deal with the exam

كلمات و عبارات إسترشادية تساعدك على حل أسئلة الامتحان.

Topic	Guiding words	Exam items
Installation and removal of software and digital peripherals	uninstallation	Many programs come with their own removal or uninstallation command.
	attached device - install	The operating system automatically detects the new attached device, and the operating system installs the correct "Driver" for the attached device.
	devices - printers	Devices and printers are displayed in the control panel.
	Internet - file	If you download the program from the Internet, the program is in the form of a file.

General Exercises

On Lesson Four

يمكنك حل التدريب وتصويبه إلكترونيًا

▸ If you got 🔴 you need to revise the lesson again.

ممتاز 🔵 جيد جدًا 🟢 جيد 🟡 غير جيد 🔴

قم بتقييم نفسك بالعلامات الموضحة وإذا حصلت على 🔴 (غير جيد) قم بمراجعة الدرس مرة أخرى من الصفحة السابقة.

El-Moasser Exercises

1 Choose the correct answer from a, b, c or d.

1. The CD in the new device settings contains ....
   a. driver files b. your digital footprint
   c. Maps d. GPS
2. Control Panel is used for ....
   a. connecting to the internet b. opening the mail
   c. downloading files from the Internet d. removing or uninstalling programs
3. The file you download might be compressed, so you first need to .... the file be able to work with it.
   a. save b. extract c. install d. remove

2 Put (✓) or (×) for the following sentences.

1. We can remove the program without the need for the operating system. (
2. We can't use the computer without installing any program. (
3. No program can be installed without the permission of the operating system. (
4. Operating systems doesn't support any peripheral devices. (
5. New devices include a CD for setup. (
6. The program cannot be installed without the user's approval. (

Student's Book Exercises

1 Choose the correct answer from a, b, c or d.

1. When you download software from the Internet, the software is in the form of a/
   .... which is used to install the software.
   a. digital fingerprint b. file c. image d. worksheet

2. Removing a program means that you are .... the computer .
   a. copying all the program files to
   b. deleting all the program files from
   c. pasting all the program files to
   d. saving all the program files from
3. Many programs come with a command ....
   a. copy their installation
   b. uninstall their installation
   c. paste their installation
   d. compress their installation
4. Removing unused programs leads to ....
   a. slowing down the computer
   b. saving storage space
   c. difficulty in using the device
   d. stopping the computer
5. When the operating system automatically detects a new peripheral device, it ....
   a. deletes the driver for the peripheral device
   b. installs the appropriate driver for the peripheral device
   c. shuts down the computer
   d. restarts the computer
6. To install a new peripheral device, it is required to provide ....
   a. information and data
   b. drivers
   c. folders
   d. images
7. Modern operating systems include a list of .... for many accessory devices.
   a. malware
   b. viruses
   c. songs
   d. drivers
8. The Plug and Play feature is ....
   a. the operating system deletes the correct and appropriate driver for the new peripheral device
   b. the operating system installs the correct and appropriate driver for the new peripheral device
   c. the operating system copies the correct and appropriate driver for the new peripheral device
   d. the operating system shuts down the computer

2 Put (✓) or (×) for the following sentences.

1. While you are preparing and getting ready to implement your project on your computer, you must make sure that the required programs are on the device. ( )
2. Many programs come with their own removal or uninstallation command. ( )
3. To uninstall the program, use the Control Panel. ( )

4. The operating system helps you uninstall the program. (
5. Removing unused programs increases the storage space on the disk. (
6. Operating systems support many devices attached to the computer such as the printer and webcam. (
7. When the operating system automatically detects the new peripheral device, it installs the appropriate driver for the peripheral device. (
8. Modern operating systems do not include a list of drivers for many accessory devices. (
9. A driver is a file or files that the operating system installs to use the new peripheral device with its full features. (

3 **Write the steps** to install the program from a CD or DVD on the computer.

1. .... 2. .... 3. ....

4 **Write the steps** to install the program from a file downloaded from the Internet or the computer.

1. .... 2. .... 3. ....

5 **Write the steps** to install the program from a compressed file on the computer.

1. .... 2. .... 3. ....

6 **Write** one of the ways to remove or uninstall the program.

1. .... 2. .... 3. ....

7 **Write the steps** to remove a program installed on the device through the Control Panel.

1. .... 2. .... 3. ....

8 **Write the steps** to install a local printer (i.e. directly connected to the computer) th supports the Plug and Play feature.

1. .... 2. .... 3. ....

9 **Write the steps** to install a printer that does not support the Non-Plug and Play printer feature.

1. .... 2. .... 3. ....

قم بتلوين الدائرة باللون
المناسب لمستواك.



Revision

on Lessons 3 & 4



مراجعة عامة على الدرسين الثالث والرابع فى ورقة واحدة

Lesson 3 : Operating Systems

1

Operating Systems

- It is an interface between the users, hardware and software.
- It is responsible for managing the hardware components, running all software and helping the user accomplish their tasks on the computer easily and smoothly.

Startup screen of an operating system

- The operating system startup screen includes a set of symbols called Icons that appear arranged in a specific order over a background of an image that the user selects.
- Bars contain icons that symbolize software installed on the operating system and other icons to adjust some system settings such as date, time, sound settings and network.

2

Examples of devices that use operating system

- Personal computers (PCs) : use operating system like : Microsoft Windows, macOS, and different distributions of Linux.
- Mobile Devices : depend on operating system like :
  Apple's iOS, Google's Android.
- Gaming consoles : feature exclusive operating systems tailored for gaming and multimedia purposes.

Lesson 4 : Installation and removal of software and digital peripherals

- If you purchased the program, the program comes on a CD or DVD and you use this CD to install the program.
- If you download the program from the Internet, the program is in the form of a file, and this file is used to install the program.
- When you plan to stop using an installed program on your computer or mobile, you must uninstall the program from your device.
- Removing unused programs saves disk storage and speeds up and eases the use of the device.
- Installing printers that do not support the Plug and Play feature may require some additional setup work.
- The last step in the printer setup process is to give the printer a name.

Accumulative Test

On Lessons 3 & 4

اختبار تراكمى على الدرسين الثالث والرابع

1 Choose the correct answer from a, b, c or d.

1. One of the steps to install the program from a CD or DVD is to ....
   a. delete all the files on your device
   b. disconnect the mouse from your de
   c. select the installation file SETUP.EXE
   d. select the download file

2. One of the necessary steps to install the program from a file downloaded from th Internet is to ....
   a. open the PowerPoint file
   b. double-click on the file
   c. access the installation file SETUP.EXE
   d. both b & c

3. .... are types of operating systems used in ATMs.
   a. Smartphone operating systems
   b. Computer operating systems
   c. Embedded device operating systems
   d. GPS

4. You can .... to uninstall a program on your devices.
   a. download an antivirus program
   b. restore files from the recycle bin
   c. use the Control Panel
   d. switch to the keyboard

5. .... is one of the Control Panel's functions.
   a. Restoring files from the recycling bin
   b. Downloading antivirus software
   c. Switching between operating systems
   d. Installing/uninstalling programs on your device

2 Put (✓) or (×) for the following sentences.

1. The operating systems runs devices and enables them to work.
2. The windows operating systems runs on embedded systems.
3. The Linux operating systems is used only on smartphones.
4. The macOS operating systems is used on Apple computers.
5. The driver program helps you use the new attached device with its full features.
6. Connecting a local printer (directly connected to the computer) requires Plug and Play.

يمكنك المراجعة باستمرار (تراكمية)
من خلال الصفحة السابقة.

LESSON **5**

Email



Email البريد الإلكتروني

Email is a digital communication system used to send and receive messages between users over the Internet.

- هو نظام اتصال رقمي يُستخدم لإرسال واستقبال الرسائل بين المستخدمين عبر شبكة الإنترنت.



→ It is one of the cloud computing tools.

- هو أحد أدوات الحوسبة السحابية.

→ It is used to share texts, files, images and other information. - يستخدم لمشاركة النصوص والملفات والصور وغيرها من المعلومات.

→ It is one of the most popular means of communication in the world.

- يُعد من وسائل التواصل الأكثر شيوعًا في العالم.

→ It is one of the indirect communication tools.

- يُعد من أدوات الاتصال غير المباشر.

Note

Some email service providers provide you with the service of creating an email. You [illegible]e it to send and receive email messages to your teacher or one of your friends.

* تساعدك مقدمي خدمات البريد الإلكتروني المجاني على إنشاء البريد الإلكتروني ويمكنك استخدامه لإرسال واستقبال رسائل البريد أو أحد أصدقائك.

[illegible]unication	[illegible] اتصال رقمي	service providers	مقدمي خدمات	receive	يستقبل
[illegible]puting	حوسبة سحابية	popular	مشهور / شائع	indirect	غير مباشر

Components of E-mail address مكونات عنوان البريد الإلكترونى

An email address consists of three main components :

يتكون عنوان البريد الإلكتروني من ثلاثة مُكونات رئيسية ، وهى :

1 User name اسم المستخدم

* It is the part that is located at the beginning of the email address.

هو الجزء الذى يقع فى بداية عنوان البريد الإلكترونى.

* It is a name that the user chooses and specifies. هو اسم يقوم المستخدم باختياره وتحديده.

* The user name → is a unique and distinctive name that is not reserved by anyone else

اسم المستخدم ← هو اسم فريد ومميز وغير محجوز من قبل أى شخص آخر.

2 The @ symbol (at sign) الرمز @

It is a symbol that separates هو رمز يفصل بين :

- the user name اسم المُستخِدم
- **from**
- the name of the email server (domain name) used



وهو رمز يفصل بين اسم المستخدم وبين اسم خادم البريد الإلكتروني (اسم الدومين) المستخدم.

3 (Domain name) اسم الدومين

* It is the name of the email server that hosts the email account.

هو اسم خادم البريد الإلكترونى الذى يستضيف حساب البريد الإلكترونى.

* It is a place to store your email messages. وهو مكان لتخزين رسائل بريدك الإلكترونى.

Pop Quiz

▶ Choose the correct answer from a, b, c or d.

1. A/An .... is one of the main components of an e-mail and it is a name that the user chooses and specifies.
   a. user name b. @symbol c. email address d. domain name
2. .... is a place where you store your email messages.
   a. User name b. File c. Domain name d. Cloud computing
3. .... service providers help you to create an email.
   a. Email b. Information site c. Social media d. Mail server

symbol	رمز	reserved	محجوز	distinctive
components	مكونات	unique	فريد	

Advantages of using email
مميزات استخدام البريد الإلكترونى

1. **Speed :** Sending and receiving messages very quickly.
   السرعة : إرسال واستقبال الرسائل بسرعة كبيرة.
2. **Cost :** Free in most cases.
   التكلفة : مجانى فى معظم الحالات.
3. **Ease :** Easy to use with the ability to send a message to any number of recipients at the lowest cost.
   السهولة : سهل الاستخدام مع إمكانية إرسال رسالة إلى أى عدد من المتلقين وبأقل تكلفة.
4. **Diversity :** Texts, files, images and other information can be shared.
   التنوع : يمكن مشاركة النصوص والملفات والصور وغيرها من المعلومات.
5. **Reliability :** Messages arrive reliably in most cases.
   الموثوقية : وصول الرسائل بشكل موثوق به فى معظم الحالات.
6. **Digital services :** Registration is done using email on the websites of service providers and digital products online.
   الخدمات الرقمية : يتم التسجيل بإستخدام البريد الإلكترونى فى مواقع مقدمى الخدمات والمنتجات الرقمية عبر الإنترنت.

Drawbacks of using email
عيوب استخدام البريد الإلكترونى

1. **Hacking :** It can be hacked by hackers.
   الاختراق : يمكن اختراقه من قبل المخترقين.
2. **Spam :** You may receive unwanted messages.
   الرسائل المزعجة : قد تتلقى رسائل غير مرغوب فيها.
3. **Fraud :** You receive fraudulent messages.
   الاحتيال : تلقى رسائل الاحتيال.
4. **Viruses :** Some emails may contain viruses or malware.
   الفيروسات : قد تحتوى بعض رسائل البريد الإلكترونى على فيروسات أو برامج ضارة.
5. **Privacy :** Emails may not be completely secure.
   الخصوصية : قد لا تكون رسائل البريد الإلكترونى آمنة تماما.

مجانى	ability	إمكانية	cases	حالات	
آمن	hackers	مخترقين	malware	برامج ضارة	
مستخدم	fraudulent messages	رسائل الاحتيال	digital products	منتجات رقمية	
غير مرغوب	reliably	بشكل موثوق به			

Providers of Email Services مقدمى خدمات البريد الإلكترونى

There are many free email providers available such as :

هناك العديد من مقدمى خدمات البريد الإلكترونى المجانى المتاحين مثل :

Gmail	Yahoo Email	Hotmail/Outlook

Create an email on Google إنشاء بريد إلكترونى على جوجل

* Google offers you many electronic services, including → the email service.

دم لك جوجل العديد من الخدمات الإلكترونية منها ← خدمة البريد الإلكترونى.

* To create an email through → the Gmail service شاء بريد إلكترونى من خلال ← خدمة Gmail

To obtain other Google services, you must create a Google Account

الحصول على خدمات Google الأخرى يجب إنشاء حساب جوجل

A Google Account consists of

- (a user name) اسم المستخدم
- (a password) كلمة مرور

Advantages of creating a Google Account مميزات إنشاء حساب على جوجل

* Creating a Google Account enables you to log in to the Gmail email service.

نك إنشاء حساب جوجل من التسجيل للدخول إلى خدمة البريد الإلكترونى Gmail.

* A Google Account also enables you to use other Google features and services such a

يُمكنك حساب جوجل من استخدام ميزات وخدمات أخرى لجوجل مثل :

[Google Meet, Google Docs, Google Drive, YouTube]

available	متاح	electronic services	خدمات إلكترونية	create	
obtain	يحصل على	consist of	يتكون من	log in	دخول
features	مميزات	offer	يقدم		

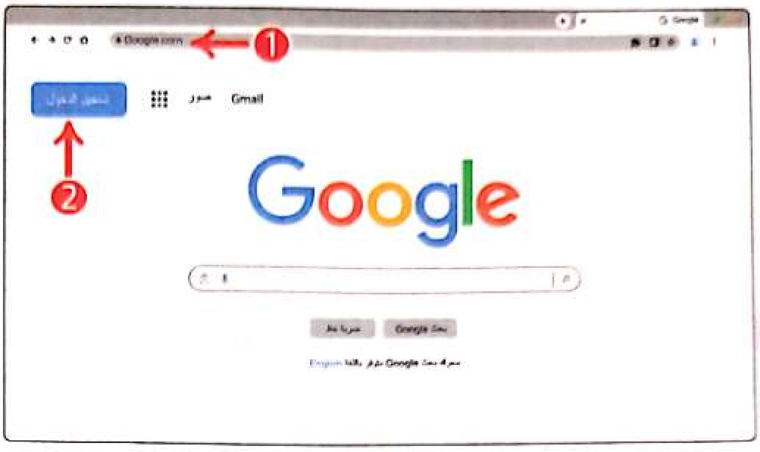
Steps to create a Google Account خطوات إنشاء حساب جوجل

1 Download the **Google Website**
[/https://www.google.com.eg](https://www.google.com.eg)

١. قم بتحميل موقع جوجل

2 Click **Sign in**

٢. اضغط تسجيل الدخول



3 Choose **Create Account**

٣. اضغط إنشاء حساب



4 To establish a Google account, choose **"Create my personal account "**.

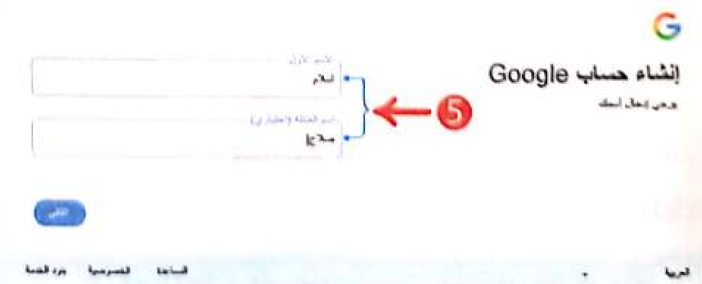
٤. لعمل حساب على Google, اختر **إنشاء حسابى الشخصى**.



5 Insert your **'First name'** and **'Last name'**, then click the **'Next'** button.

٥. ادخل اسمك الأول واسمك الأخير

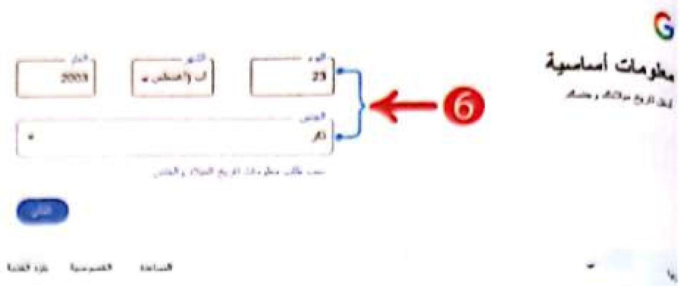
ثم اضغط **التالى** :



download	تحميل	personal account	حساب شخصى	steps	خطوات
click	اضغط	insert	ادخل		

6 Enter your date of birth and gender, then click **'Next'**.

٦. ادخل تاريخ ميلادك والنوع ثم اضغط التالى.



7 Type the username you want in the 'Username' field and then click 'Next'.

٧. اكتب اسم المُستخدم الذى ترغب به فى خانة اسم المُستخدم Username ثم اضغط التالى.



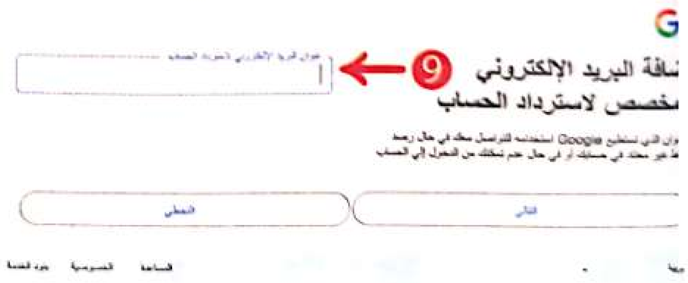
8 Choose the password you want, and confirm it again, making sure that it is difficult to guess.

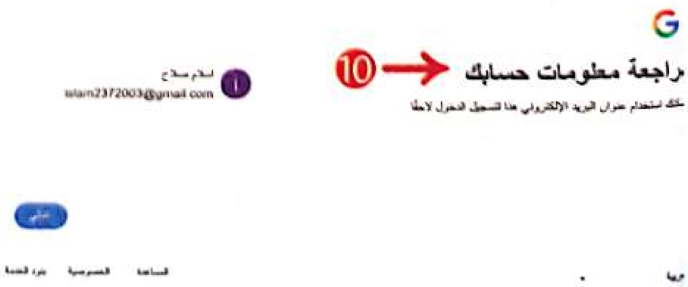
٨. اختر كلمة المرور التى تريدها، وأكّدها مرة أخرى، مع الحرص على أن يصعب تخمينها.



9 Enter an alternative email address used to recover the account and you can skip this.

٩. أدخل عنوان بريد الكترونى بديل يستخدم لاسترداد الحساب ويمكنك تخطى ذلك.





10 Check and confirm your email address.

١٠. قم بالاطلاع على عنوان بريدك الإلكترونى والتأكد منه.

type	اكتب	gender	نوع	alternative	بديل	skip	[illegible]

11 To complete the steps to create your email, review the terms of service and click 'I agree' if you accept them.

١١. لاستكمال خطوات إنشاء بريدك الإلكترونى قم بالإطلاع على بنود الخدمة واضغط أوافق فى حالة قبولها.



12 Now that you have a 'Google Account' (username and password), you can use your 'Google Account' to access your email or many of the services provided by 'Google'.

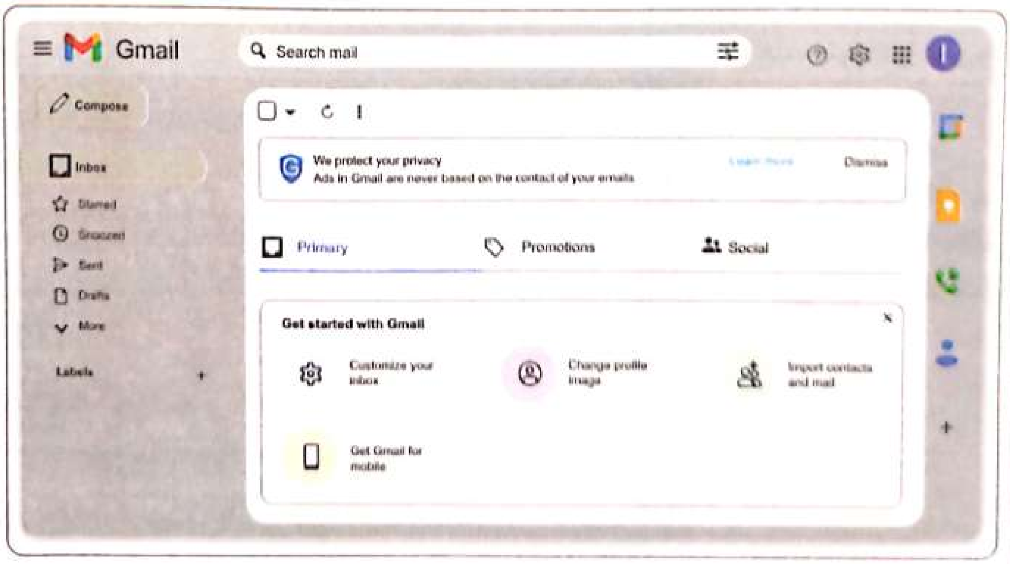
١٢. الآن أصبح لديك حساب جوجل يتكون من (إسم المستخدم وكلمة مرور)، يمكنك استخدام حساب جوجل للدخول إلى بريدك الإلكترونى أو العديد من خدمات التى يقدمها Google.



Gmail email interface واجهة البريد الإلكترونى

* The default appearance of the Gmail email window is as follows :

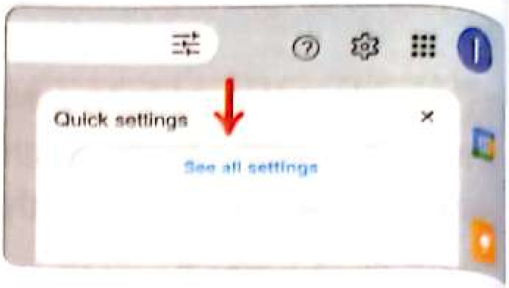
- تظهر نافذة البريد الإلكترونى لجوجل Gmail بشكلها الإفتراضى التالى :



accept	يقبل	terms of service	بنود الخدمة	appearance	ظهور
complete	استكمال	default	افتراضى	as follows	كما يلى

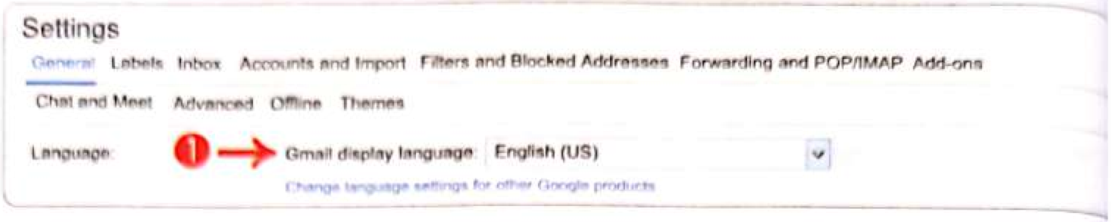
* The interface language can be modified by selecting the settings icon and → then choosing 'See all settings'.

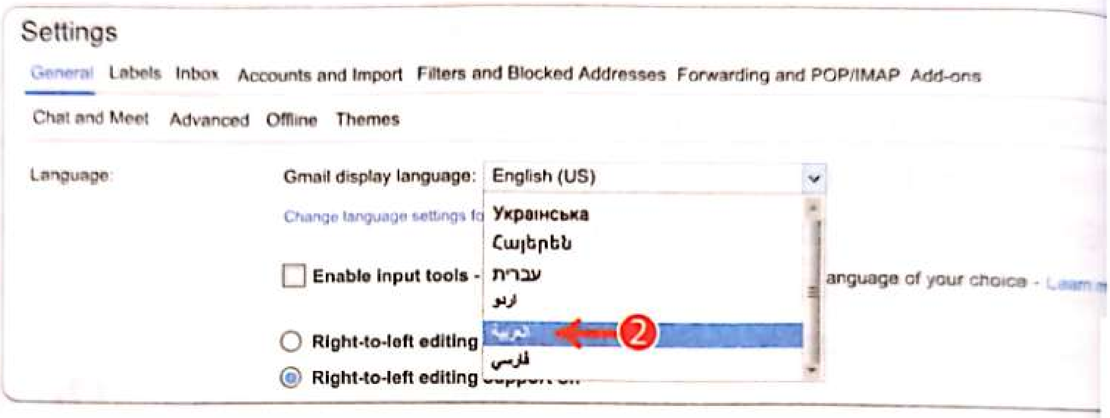
- يمكنك تغيير لغة الواجهة بالضغط على أيقونة الإعدادات ← ثم اختر عرض جميع الإعدادات.



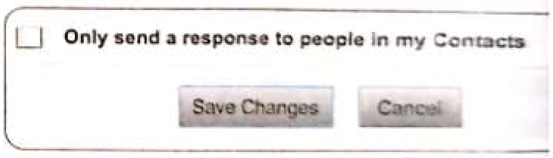
* From the "General" menu, select the Arabic language under "Gmail display language".

- من القائمة "General" ومن خلال "Gmail display language" نختار اللغة العربية.





* When you choose the Arabic language and click the **'Save Changes'** button, the **Gmail** email window interface appears in Arabic as shown below :



- عند اختيار اللغة العربية والضغط على الزر **Save Changes** تظهر واجهة نافذة البريد الإلكتروني Gmail باللغة العربية كما بالشكل التالي :



menu	قائمة	language	لغة	icon
settings	إعدادات	interface	واجهة	

Sign out of your Gmail account الخروج من حسابك علي Gmail

* Click on your profile picture icon and then choose 'Sign out'.

- انقر علي ايقونة صورة ملفك الشخصي ثم اخترتسجيل خروج Sign out.



Pop Quiz

▶ **Complete the following sentences.**

1. .... , ... and .... are advantages of emails.
2. To get Google services, you should have ....
3. Google account consists of .... and ....

Activity

Dear student, with the help of your teacher and in cooperation with your colleagues, through "Gmail", how can you receive and read an email.

How to receive an email :

1. Open the email program "Gmail".

2. View your inbox to view new email messages.

3. Open the email message to read it.

4. Reply, forward, or delete the message if necessary.

Stop here !



استمع إلى
ملخص الدرس

نقاط هامة وعبارات استرشادية تمكنك من تلخيص وإتقان الدرس.

Lesson Summary

- Email is a digital communication system used to send and receive messages between users over the Internet and it is one of the cloud computing tools.

  البريد الإلكترونى هو نظام اتصال رقمى يستخدم لإرسال واستقبال الرسائل بين المستخدمين عبر الإنترنت وهو أحد أدوات الحوسبة السحابية.

- Email is used to share texts, files, images and other information.

  يستخدم البريد الإلكترونى لمشاركة النصوص والملفات والصور وغيرها من المعلومات.

- Advantages of using email are speed, ease, diversity, reliability and digital services.

  تميز استخدام البريد الإلكترونى بالسرعة، السهولة، التنوع، الموثوقية والخدمات الرقمية.

- Drawbacks of using email are hacking, spam, fraud and viruses.

  ن عيوب استخدام البريد الإلكترونى الاختراق والرسائل المزعجة والاحتيال والفيروسات.

- You must create a Google Account to obtain the Google services.

  يب انشاء حساب جوجل "Google Account" للحصول علي خدمات جوجل.

How to deal with the exam

ـ و عبارات إسترشادية تساعدك على حل أسئلة الامتحان.

Topic	Guiding words	Exam items
Email	popular - indirect	Email is one of the most popular means of communication in the world and the indirect communication tools.
	free - providers	There are many free email providers available such as Hotma outlook - Yahoo Email - Gmail.
	user name	The user name is a unique and distinctive name that is not reserved by anyone else.
	@ symbol	The @ symbol (at sign) is a symbol that separates the user nar from the name of the email server (domain name) used.
	domain name	The domain name is the name of the email server that hosts t email account and is a place to store your email messages.
	digital products	Registration is done using email on the websites of service providers and digital products online.
	sign out	To sign out of your Gmail account, click on your profile picture icon and then choose "Sign out".

General Exercises

On Lesson Five

يمكنك حل التدريب وتصويبه إلكترونيا



ممتاز ● جيد جدا ● جيد ● غير جيد ●

▸ If you got ● you need to revise the lesson again.

قم بتقييم نفسك بالعلامات الموضحة وإذا حصلت على ● (غير جيد) قم بمراجعة الدرس مرة أخرى من الصفحة السابقة.

El-Moasser Exercises

1 Choose the correct answer from a, b, c or d.

1. The user name in an email address is ....
   a. determining the user's nationality
   b. to delete email messages
   c. used to remove the email account
   d. a unique and distinctive name that is not reserved by anyone else
2. The symbol @ in an email address ....
   a. separates the user name from the domain name
   b. is used to send and receive email messages
   c. is used to create email messages
   d. is an optional and non-essential symbol
3. Which of the following is considered a correct email address ?
   a. Ayman22_2@gmail.com
   b. zizo@mohamed
   c. Omar2203_4$gmail.com
   d. Tarek30#gmail.com
4. .... is one of the advantages of using email.
   a. Speed in sending and receiving messages
   b. High cost
   c. Spam
   d. Informal communication tools
5. The importance of using the Gmail service is to ....
   a. not allow us to communicate with others
   b. communicate with government agencies only
   c. access to many Google services
   d. have difficulty in sending files

2 Complete the following sentences.

1. .... provides service for creating email.
2. Email is one of the tools of .... communication.
3. .... is the part that located at the beginning of the email address.
4. .... separates the user name from the email server used.
5. .... is used to access email on Google.

3 Put (✓) or (×) for the following sentences.

1. The domain name is a unique and distinctive name that is not reserved by anyone else. (
2. Emails contribute to faster communication. (
3. Emails can be hacked by hackers. (
4. Emails contribute to reducing communication costs. (
5. Gmail is a free service for creating email. (

Student's Book Exercises

1 Choose the correct answer from a, b, c or d.

1. Email is a ....
   a. manual communication system
   b. digital communication system
   c. direct communication system
   d. virus system
2. Through email, you can ....
   a. delete files
   b. use cloud computing applications
   c. install programs
   d. print files
3. One of the most important uses of email is ....
   a. to scan paper
   b. to share information
   c. cyberbullying
   d. to delete files on your device
4. One of the advantages of using email is ....
   a. speed in sending and receiving messages very quickly
   b. spam
   c. fraud
   d. viruses
5. Email is considered ....
   a. one of the direct communication tools
   b. one of the indirect communication to
   c. manual communication system
   d. text file
6. One of the disadvantages of using email is ....
   a. speed   b. cost   c. ease   d. hacking
7. From email service providers is ....
   a. Gmail   b. Paint   c. Google Docs   d. YouTube
8. To get one of the Gmail services, you must create ....
   a. text file   b. "Google Account"   c. presentation file   d. "Google Me
9. To log out of your Gmail account, click on the .... icon.
   a. Sign in   b. Sign out   c. Shut down   d. Close

2 Read and answer : The email address consists of :

1. ....
2. ....
3. ....

قم بتلوين الدائرة باللون
المناسب لمستواك.



LESSON 6

Cloud Computing



Cloud computing الحوسبة السحابية



It is a model for providing digital services over the Internet.

Such as :

هى نموذج لتقديم الخدمات الرقمية عبر الإنترنت مثل :

Cloud storage service or computer storage : is storing files and folders over the Internet. خدمة التخزين السحابى أو التخزين الحوسبى وهى تخزين الملفات والمجلدات عبر الانترنت.	Software service (applications) over the Internet : is making software (applications) available over the Internet. خدمة البرمجيات (التطبيقات) عبر الانترنت وهى إتاحة استخدام البرمجيات (التطبيقات) عبر الانترنت.	Electronic resource sharing service : is sharing and exchanging files with others over the Internet. خدمة مشاركة المصادر الإلكترونية مثل مشاركة الملفات وتبادلها مع الآخرين عبر شبكة الإنترنت.

model	نموذج	folders	مجلدات	files	ملفات
digital services	خدمات رقمية	available	متاحة	sharing	مشاركة

Benefits of Cloud Computing : فوائد الحوسبة السحابية :

1 Ease of access : Cloud Computing services can be obtained without the need to own a computer or mobile phone, ... with high specifications, whether as :

→ hardware components (Or) → software components.

سهولة الوصول : يمكن الحصول علي خدمات الحوسبة السحابية دون الحاجة إلى امتلاك جهاز كمبيوتر أو هاتف محمول ، ذات مواصفات عالية سواء : ← كمكونات مادية (أو) ← مكونات برمجية

2 Availability of the service : The user can access his data, files and applications from anywhere where the Internet service is available.

توافر الخدمة يمكن للمستخدم ← الدخول على بياناته وملفاته وتطبيقاته من أى مكان تتوافر فيه خدمة الإنترنت.

3 Reducing material costs :

- تخفيض التكاليف المادية :

a : There is no need to purchase software licences **SOFTWARE.**

ليس هناك حاجة إلى شراء تراخيص للبرمجيات **SOFTWARE**

b : There is no need to purchase hardware components with high specifications.

ليس هناك حاجة لشراء مكونات مادية ذات مواصفات عالية.



4 Sharing digital resources with others.

مشاركة المصادر الرقمية مع الآخرين.

Pop Quiz

▶ **Choose the correct answer from a, b, c or d.**

1. Cloud computing is a model for providing .... services over the Internet.
   a. computing b. text c. digital d. social
2. Cloud computing enables us to access data anywhere where the .... service is available.
   a. internet b. printer c. mobile phones d. computer

specifications	مواصفات	reducing	تخفيض	purchase	
access	الوصول	material costs	تكاليف مادية	licences	

Areas of using cloud computing applications in daily life :

مجالات استخدام الحوسبة السحابية فى الحياة اليومية :

▶ Some examples of areas of using cloud computing applications in daily life

- بعض الأمثلة على مجالات استخدام الحوسبة السحابية فى الحياة اليومية

1 Communication التواصل

* **Email :** Use cloud email such as Gmail, Outlook, and Yahoo Mail daily to communicate with family, friends, and colleagues.

  - **البريد الإلكترونى :** استخدام البريد الإلكتروني السحابى مثل : Gmail و Outlook و Yahoo Mail بشكل يومى ← للتواصل مع العائلة والأصدقاء والزملاء.

* **Social networking :** We communicate with others and share content on social media platforms such as : Facebook, Twitter, and Instagram.

  - **شبكات التواصل الاجتماعى :** نتواصل مع الآخرين ونشارك المحتوى على منصات التواصل الاجتماعى مثل : Facebook و Twitter و Instagram.

* **Messaging services :** We use messaging applications such as WhatsApp and Telegram → to communicate and share files and photos.

  - **خدمات المراسلة :** نستخدم تطبيقات المراسلة مثل : WhatsApp و Telegram ← للتواصل ومشاركة الملفات والصور.

2 Computer storage التخزين الحوسبى

* **File storage services :** We use services such as Google Drive and One Drive → to store, share, and access files at anytime and anywhere.

  - **خدمات تخزين الملفات :** نستخدم خدمات مثل : Google Drive و One Drive ← لتخزين الملفات ومشاركتها والوصول إليها فى أى وقت ومن أى مكان .

* **Data backup :** We use cloud backup services → to protect our data from loss in case of any damage happens to our devices.

  - **نسخ البيانات احتياطيًا :** نستخدم خدمات النسخ الاحتياطى السحابية ← لحماية بياناتنا من فقدانها فى حال حدوث أى تلف فى أجهزتنا.

3 Producing projects by using إنتاج المشاريع باستخدام

* **Word processing programs :** We use cloud word processing programs such as Google Docs, Microsoft Word Online → to create, edit and share documents with others.

  - **برامج معالجة النصوص :** نستخدم برامج معالجة النصوص السحابية مثل : Google Docs و Microsoft Word Online ← لإنشاء وتحرير المستندات ومشاركتها مع الآخرين .

* **Spreadsheets :** We use cloud spreadsheets such as Google Sheets and Microsoft Excel Online → to organize and analyze data and create charts.

  - **جداول البيانات :** نستخدم جداول البيانات السحابية مثل : Google Sheets و Microsoft Excel Online ← لتنظيم البيانات وتحليلها وإنشاء الرسوم البيانية .

areas	مجالات	content	محتوى	backup	النسخ الاحتياطى
daily life	الحياة اليومية	messaging applications	تطبيقات المراسلة	create	ينشأ

4 Education التعليم

* **E-learning platforms :** We use e-learning platforms to access educational materials and interact with teachers and students **such as :** the Ministry of Education platform.

منصات التعلم الإلكترونى : تستخدم للوصول إلى المواد التعليمية والتفاعل مع المعلمين والطلاب مثل : منصة وزارة التربية والتعليم.

* **Collaboration tools :** We use cloud collaboration tools **such as Google Classroom** and **Microsoft Teams** → to work on projects and assignments with others.

أدوات التعاون : نستخدم أدوات التعاون السحابية مثل : Google Classroom و Microsoft Teams للعمل على المشاريع والمهام مع الآخرين .

5 Entertainment الترفيه

* **Video streaming services :** We enjoy watching movies, TV shows and programs on video streaming services **such as :** YouTube.

خدمات بث الفيديو : نستمتع بمشاهدة الأفلام والبرامج التليفزيونية والبرامج على خدمات بث الفيديو مثل : YouTube .

* **Video games :** We play video games online on cloud platforms.

ألعاب الفيديو : نلعب ألعاب الفيديو عبر الإنترنت على المنصات السحابية .

* **Cloud music services.**

خدمات الموسيقى السحابية.

6 Other areas مجالات أخرى

* **Online shopping :** We shop through e-commerce sites.

التسوق الإلكترونى: نتسوق من خلال مواقع التجارة الإلكترونية.

* **Online banking :** We use online banking to transfer money and pay bills.

الخدمات المصرفية عبر الإنترنت: نستخدم الخدمات المصرفية عبر الإنترنت لتحويل الأموال ودفع الفواتير.

* **Healthcare services :** Cloud computing is used to store medical records.

خدمات الرعاية الصحية : يتم استخدام الحوسبة السحابية لتخزين السجلات الطبية.

Pop Quiz

▶ **Complete the following sentences.**

1. We use .... to do projects and tasks with others.
2. .... can be used daily to communicate with your family , friends and colleagues.

Activity

Dear student, with the help of your teacher and in cooperation with your colleagues search for areas of using cloud computing in daily life.

interact	يتفاعل	cloud music	الموسيقى السحابية	transfer	يحول
assignments	المهام	e-commerce	التجارة الإلكترونية	store	يخزن

Data processing and storage in cloud computing معالجة البيانات وتخزينها فى الحوسبة السحابية



* Data processing and storage in cloud computing depends on a huge infrastructure, the steps of data processing and storage in computing can be summarized as follows :

- تعتمد معالجة البيانات وتخزينها فى الحوسبة السحابية على بنية تحتية ضخمة ويمكن تلخيص خطوات معالجة البيانات وتخزينها فى الحوسبة فى التالى :

1. **Data collection** from different sources. **جمع البيانات** من مصادر مختلفة.
2. **Data transfer** to cloud data centers. **نقل البيانات** إلى مراكز البيانات السحابية.
3. **Data processing** in cloud data centers and through powerful servers.
   معالجة البيانات فى مراكز البيانات السحابية ومن خلال خوادم كمبيوتر Servers قوية.
4. **Data storage :** Data is stored on high-capacity storage units in cloud data centers.
   تخزين البيانات : يتم تخزين البيانات على وحدات تخزين عالية السعة فى مراكز البيانات السحابية.
5. **Data management :** Data is managed by database management systems in cloud data centers.
   إدارة البيانات : يتم إدارة البيانات بواسطة أنظمة إدارة قواعد البيانات فى مراكز البيانات السحابية.
6. **Data access :** Data can be accessed by users and applications through the Internet.
   الوصول إلى البيانات : يمكن الوصول إلى البيانات من قبل المستخدمين والتطبيقات من خلال الإنترنت.

Requirements to obtain cloud computing services

متطلبات يجب توافرها للحصول على خدمات الحوسبة السحابية



1. A computer or mobile phone. جهاز كمبيوتر أو هاتف محمول.
2. An internet browser or application. متصفح إنترنت أو تطبيق.
3. An internet connection. الاتصال بشبكة الإنترنت.
4. Create an account with one of the computing service providers. عمل حساب لدى أحد موفرى خدمات الحوسبة.

The most famous cloud computing service providers

أشهر موفرى (مزودى) خدمات الحوسبة السحابية

* Amazon Web Services
* Microsoft Azure
* Google Cloud Platform



Cloud Computing Providers

Activity

Dear student : with the help of your teacher and in cooperation with your partners, search online for other cloud computing service providers.

huge	ضخم	steps	خطوات	high-capacity	ذات سعة عالية
infrastructure	بنية تحتية	requirements	متطلبات	database	قواعد بيانات

Stop here !



استمع إلى
ملخص الدرس

نقاط هامة وعبارات استرشادية تمكنك من تلخيص وإتقان الدرس.

Lesson Summary

- Cloud computing is a model for providing digital services over the Internet.

- الحوسبة السحابية هى نموذج لتقديم الخدمات الرقمية عبر الإنترنت.

- Benefits of cloud computing :
  1. Ease of access سهولة الوصول
  2. Availability of the service توافر الخدمة
  3. Reducing material costs تخفيض التكاليف المادية
  4. Sharing digital resources with others مشاركة المصادر الرقمية مع الآخرين

وائد الحوسبة السحابية :

- Some examples of areas of using cloud computing applications in daily life : (Communication - Computer storage - Producing projects - Education - Entertainment

بعض الامثلة على استخدام الحوسبة السحابية فى الحياة اليومية : (التواصل - التخزين الحوسبى - إنتاج المشاريع - التعليم - الترفيه)

- Data processing and storage in cloud computing depends on a huge infrastructure.

تعتمد معالجة البيانات وتخزينها في الحوسبة السحابية علي بنية تحتية ضخمة.

- The requirements to obtain cloud computing services are a computer or mobile phone, an internet connection and an account with one of the computing services providers.

يتطلب توافر جهاز كمبيوتر أو هاتف واتصال بشبكة إنترنت وحساب لدى أحد موفرى خدمات الحوسبة للحصول على خدمات الحوسبة السحابية.

How to deal with the exam

كلمات و عبارات إسترشادية تساعدك على حل أسئلة الامتحان.

Topic	Guiding words	Exam items
Cloud Computing	Computer storage - Google Drive	Computer storage service is storing files and folders over the Internet such as : Google Drive.
	Google Docs	We use cloud word processing programs such as Google Docs to create, edit and share documents with others.
	Google Classroom - projects	We use cloud collaboration tools such as Google Classroom and Microsoft Teams to work on projects and assignments with others
	Cloud spreadsheets	We use cloud spreadsheets such as Google Sheets and Microsoft Excel Online to organize and analyze data and create charts.

General Exercises

On Lesson Six

يمكنك حل التدريب وتصويبه إلكترونيًا



▸ If you got 🔴 you need to revise the lesson again.

ممتاز 🔵 جيد جدا 🟢 جيد 🟡 غير جيد 🔴

قم بتقييم نفسك بالعلامات الموضحة وإذا حصلت على 🔴 (غير جيد) قم بمراجعة الدرس مرة أخرى من الصفحة السابقة.

El-Moasser Exercises

1 Choose the correct answer from a, b, c or d.

1. .... is one of the uses of cloud computing in the field of storage.
   a. Google Drive b. Word c. Excel d. Telegram
2. .... are the uses of cloud computing in the field of producing projects.
   a. Word processing programs b. Spreadsheets
   c. Both (a) and (b) d. Video games
3. We use cloud computing in the field of education through ....
   a. messaging services b. online shopping
   c. Google Classroom d. banking services
4. All the following are services provided by cloud computing in the field of entertainment except ....
   a. watching YouTube b. video games
   c. printing documents d. music services
5. All the following are the steps of data processing and storage except ....
   a. data collection b. data transfer c. data processing d. data hacking

2 Complete the following sentences.

1. Cloud computing helps reduce material costs because ....
2. Cloud computing can be used in .... by using word processing programs.
3. Cloud computing can be used in .... , such as transferring money and paying bills.

3 Put (✓) or (✗) for the following sentences.

1. Cloud computing can be used in multiple fields such as education, health, and entertainment. ( )
2. Cloud computing works on processing data easily. ( )
3. You cannot collaborate and communicate with others using cloud computing. ( )

Student's Book Exercises

1 Choose the correct answer from a, b, c or d.

1. Cloud computing is known as a model for providing ....
   a. presentations
   b. digital services over the Internet
   c. Google Docs
   d. Google Classroom

2. The computer storage service is ....
   a. storing files and folders locally on the computer
   b. storing files and folders over the Internet
   c. sharing and exchanging files
   d. Google Classroom

3. The software and application service over the Internet is known as ....
   a. enabling the use of software and applications over the Internet
   b. enabling the use of software and applications without the Internet
   c. sharing and exchanging files locally
   d. email service

4. The service of sharing electronic resources via computing is known as ....
   a. computer storage
   b. sharing files and folders locally on the computer
   c. sharing and exchanging files with others over the Internet
   d. email sharing

5. Communication is one of the areas of using cloud computing in daily life, and is done through ....
   a. Email
   b. software and applications
   c. computer storage
   d. Google Sheets

6. Services for storing, sharing and accessing files at any time and from anywhere a called ....
   a. email
   b. software and applications
   c. computing storage
   d. Google Sheets

7. We use cloud word processing programs such as ....
   a. Google Docs
   b. Google Sheets
   c. Google Classroom
   d. Google Cloud Platform

8. We use cloud spreadsheets such as ....
   a. Google Docs
   b. Google Sheets
   c. Google Classroom
   d. Google Cloud Platform

9. We use cloud collaboration tools such as ....
   a. Google Docs
   b. Google Sheets
   c. Google Classroom
   d. Google Cloud Platform

10. The most famous cloud computing service providers are ....
   a. Google Docs
   b. Google Sheets
   c. Google Classroom
   d. Google Cloud Platform

2 Write 3 benefits of cloud computing :

1. ....
2. ....
3. ....

3 Write 3 areas of using cloud computing in daily life :

1. ....
2. ....
3. ....

4 Write the steps for processing and storing data in cloud computing :

1. ....
2. ....
3. ....
4. ....
5. ....
6. ....



قم بتلوين الدائرة باللون
المناسب لمستواك.

Revision

on Lessons 5 & 6



مراجعة عامة على الدرسين الخامس والسادس فى ورقة واحدة

Lesson 5 : Email

1

Email

- It is a digital communication system used to send and receive messages between users over the Internet.
- It is one of the cloud computing tools.
- It is used to share texts, files, images and other information.
- It is one of the most popular means of communication in the world and one of the indirect communication tools.
- It is characterized by speed, ease, diversity, reliability, digital services and free cost in most cases.

2

- Drawbacks of using email :
  - Hacking • Spam • Fraud
  - Viruses • Privacy
- Providers of Email Services :
  There are many free email providers available such as :
  Hotmail / Outlook - Yahoo Email - Gmai
- To create an email on Google
  - Google offers you many electronic services, including the email service to create an email through Gmail service.
- Google Account consists of :
  - User name • Password
- Google Account enables you to use other Google features and services such us : [Google Meet, Google Docs, Google Drive, and YouTube]

Lesson 6 : Cloud Computing

1

Cloud Computing

- It is a model for providing digital services over the Internet such as: cloud storage service, software service and electronic resource sharing service.
- The benefits of cloud computing :
  1. Ease of access
  2. Availability of the service
  3. Reducing material costs
  4. Sharing digital resources with others
- Areas of using cloud computing applications in daily life :
  - Communication • Computer storage
  - Producing projects • Education
  - Entertainment • Online shopping
  - Online banking • Healthcare services

2

- The steps of data processing and storage in cloud computing :
  - Data collection • Data transfer
  - Data processing • Data storage
  - Data management • Data access
- Requirements to obtain cloud computing services :
  - A computer or mobile phone
  - An internet browser or application
  - An internet connection
  - Create an account with one of the computing service providers
- The most famous cloud computing service providers :
  - Amazon Web Services • Microsoft Azure
  - Google Cloud Platform

Accumulative Test

On Lessons 5 & 6

اختبار تراكمي على الدرسين الخامس والسادس

1 Choose the correct answer from a, b, c or d.

1. One of the services that email provides you with is ....
   a. sending files
   b. printing documents
   c. performing a scan of the file
   d. controlling the language used on your device

2. All the following are the importance of using email, except ....
   a. communicating with others
   b. sharing files
   c. remotely controlling your device
   d. writing text comments in the email

3. All the following are the components of the email address, except ....
   a. the user name
   b. the symbol @
   c. the domain name
   d. your phone number

4. .... is considered one of the uses of cloud computing in the field of communication.
   a. Creating spreadsheets
   b. Electronic games
   c. Writing text documents
   d. Email

5. .... is one of the cloud computing service providers.
   a. Google Cloud Platform
   b. Paint
   c. Scanner
   d. DVD

2 Put (✓) or (×) for the following sentences.

1. Email is a system for sending and receiving messages over the Internet. ( )
2. Gmail is a free service for creating email. ( )
3. The user name is located at the end of the email address. ( )
4. Cloud computing cannot protect data from loss. ( )
5. Cloud computing enables you to process data in a difficult way. ( )
6. Cloud computing enables you to store files and folders. ( )
7. Cloud computing does not allow you to share data with others. ( )

يمكنك المراجعة باستمرار (تراكمية)
من خلال الصفحة السابقة.

LESSON 7

Google Meet and Project Management



"Google Meet"

▸ It is a video conferencing service developed by Google.

- هو خدمة مؤتمرات (اجتماعات) الفيديو التى طورتها شركة Google.

From (Direct Communication Tools)

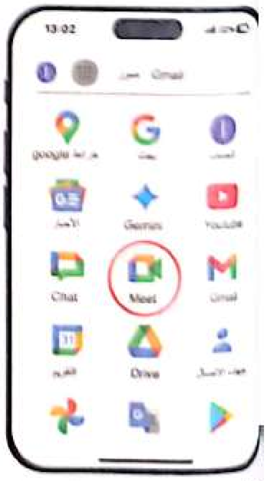
It enables users to : تتيح للمستخدمين

- conduct group video calls. إجراء مكالمات فيديو جماعية.
- share screens. مشاركة الشاشات.
- chat. الدردشة.
- collaborate in real time. التعاون فى الوقت الفعلى بطريقة مباشرة.
- work together on joint projects among students.
  الإعداد والتجهيز لإنتاج المشروعات المشتركة بين الطلاب.

Note that :
To access the "Google Meet" service, you must have a "Google account".
- يجب أن يكون لديك "حساب جوجل" "Google account" للوصول إلى خدمة "Google Meet".

How you can access "Google Meet" كيفية الوصول إلى "Google Meet"

* From your PC via the link https://meet.google.com.
  - من جهاز الكمبيوتر PC من خلال الرابط https://meet.google.com.
* By downloading the "Google Meet" application for Android devices using the "Google Play Store".
  - لأجهزة أندرويد من خلال الرابط تنزيل تطبيق "Google Meet" بإستخدام متجر جوجل بلاى "Google Play Store"



Install the program using the Google Apps icon

video conferencing	مؤتمرات الفيديو	conduct	إجراء	access	الوصول
enable	تتيح /تُمكن	real time	الوقت الفعلى	PC	جهاز الكمبيوتر

Create a meeting from "Google Meet" عقد اجتماع من "Google Meet"

* To create a meeting from "Google Meet" there are several options through which you can hold a meeting. لإنشاء اجتماع من "Google Meet" يوجد عدة خيارات يُمكنك من خلالها عقد اجتماع .

First → **You can start an instant meeting in "Google Meet" by :**
يُمكنك بدء اجتماع فورى فى "Google Meet" عن طريق :

* **Going to the main page of the "Google Meet" application and follow these steps :**
الانتقال إلى الصفحة الرئيسية للتطبيق "Google Meet" واتباع الخطوات التالية :

1. Click on the "New meeting" button. - الضغط على زر "اجتماع جديد" "New meeting"
2. Click on Start an instant meeting. - الضغط على بدء اجتماع فورى.
3. Click on the copy icon ⧉ to share the meeting link. -اضغط على ايقونة نسخ ⧉ لمشاركة رابط الاجتماع.



4. Send the meeting link to the participants via one of the communication tools **(email - WhatsApp...)**.
- إرسال رابط الاجتماع إلى المشاركين عن طريق احدى أدوات التواصل **(البريد الإلكترونى - واتساب WhatsApp...)**

Activity

Dear student, in cooperation with your partners and with the help of your teacher, do the following ....

* Create an instant meeting through Google Meet.
* Send the meeting link to your partners who are participating with you in preparing and organizing the project, your teacher, and those with whom you want to hold a meeting.

ينشأ	main page	الصفحة الرئيسية	meeting	اجتماع
فورى	copy	نسخ	participants	المشاركين

Pop Quiz

▶ **Choose the correct answer from a, b, c or d.**

1. You can make video calls and work on projects among students through ....
   a. Google Play b. YouTube c. Facebook d. Google Meet
2. You can access to "Google Meet" on Android devices through ....
   a. Google Play store b. YouTube c. Facebook d. OneDrive
3. To make online conferences using Google Meet, you should send the meeting .... to the users.
   a. message b. link c. program d. platform

Second Create a meeting for a later time : اجتماع لوقت لاحق :

▶ The "Google Meet" application also enables you to create a meeting for a later time.
كما يُمكنك تطبيق "Google Meet" من إنشاء اجتماع لوقت لاحق.

▶ It enables you to keep its link until the time you want to meet with whomever you wan to invite to attend : ويمكنك من الاحتفاظ برابطه إلى الوقت الذى ترغب فيه بالاجتماع مع من تريد دعوته للحضور :

Later time meeting steps

1. Click on "**Create a meeting for a later time**". أنقر على "إنشاء اجتماع لوقت لاحق".
2. A small window will appear with a link to the session. ستظهر نافذة صغيرة تضم رابطا للجلسة.
3. Copy the meeting link. أنسخ رابط الاجتماع.
4. Send the link to the people you want to hold the meeting with.
أرسل الرابط إلى الأشخاص الذين تريد عقد الاجتماع معهم.

Important Note :

* Sometimes, you may need to approve the request of invitees to join the session.
- فى بعض الأحيان، قد تحتاج إلى الموافقة على طلب انضمام المدعوين إلى الجلسة، بعبارة أخرى.

When the invitee tries to access your session
عندما يحاول المدعو للاجتماع الوصول إلى الجلسة فإنه

* You will see a notification at the top of the page through which you can accept or reject the person's joining. - سيظهر لك إشعار أعلى الصفحة يُمكنك من خلاله قبول أو رفض انضمام الشخص.

application	تطبيق	session	جلسة	joining	انضمام
link	رابط	notification	إشعار	reject	يرفض

Joining a meeting in "Google Meet" الإنضمام لحضور اجتماع فى

▶ **If you are invited to attend a meeting session using "Google Meet", using a link :**

- إذا تمت دعوتك لحضور جلسة اجتماع باستخدام "Google Meet"، باستخدام رابط :

* If the link is sent to you to join a session on "Google Meet" → You can access the session by clicking on the link directly.

- إذا تم ارسال الرابط إليك للانضمام إلى جلسة على "Google Meet" ← فيُمكنك الوصول إلى الجلسة عن طريق النقر على الرابط مباشرة.

* Sometimes, **it may take some time to join :**
  → until the meeting organizer approves your request to join the meeting.

← قد يستغرق الانضمام بعض الوقت إلى حين الموافقة على طلب الانضمام للاجتماع من طرف منظم الاجتماع.

* If you are invited to a meeting **through a link,**
  → you should not send the meeting link to someone else, and you must ask the meeting owner's permission.

- إذا تمت دعوتك لحضور اجتماع ما من خلال رابط :
← فلا يجب إرسال رابط الاجتماع إلى شخص آخر، ويجب استئذان صاحب الاجتماع.

During a "Google Meet" meeting أثناء اجتماع "Google Meet"

▶ **During a "Google Meet", whether you are the organizer or the invitee :**

أثناء اجتماع "Google Meet"، وسواء كنت منظمًا أو مدعوًا:

▶ **Features you can use during the meeting.**

General rules to follow during the meeting to make it organized, enjoyable and useful

قواعد عامة يجب إتباعها أثناء الإجتماع لجعله منظم وممتع ومفيد

1. **While one participant is speaking,** the rest of the participants must listen and turn off the microphone.
   - أثناء تحدث أحد المشاركين يجب على باقى المشاركين الإنصات والاستماع وغلق الميكروفون.

2. **Raising your hand in the session to ask speak** helps organize sessions, talk and intervene in an organized and smooth manner.



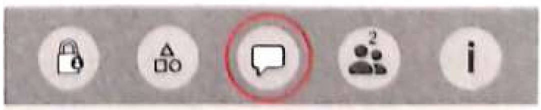
   - رفع اليد فى الجلسة لطلب التحدث تساعد على تنظيم الجلسات والحديث والتدخل بشكل منظم وسلس.

3. **When you are allowed to speak,** the microphone icon will open and you can speak.
   - عندما يسمح لك بالتحدث يتم فتح أيقونة الميكروفون والتحدث.

4. **...d messages in the session to participants .**
   - إرسال رسائل فى الجلسة إلى المشاركين.

   ... can to communicate with the attendees ...he session by clicking on the **"In call** ... icon at the bottom of the page.

الدردشة مع الجميع



   - يُمكنك التواصل مع الحضور عن طريق النقر على أيقونة "In call messages" فى الجهة السفلى للصفحة.

جلسة	attendees	الحضور	control	تحكم	intervene	التدخل
منظم الاجتم...	features	مميزات	allow	يسمح		

5 Sharing the presentation with participants

شاركة العرض مع المشاركين

A. You can share your entire screen with participants or a specific window at the bottom of the page.

- يُمكنك مشاركة شاشتك بأكمالها مع المشاركين أو نافذة معينة في أسفل الصفحة.

B. Click on [↑] the "**Share screen**" icon now.

- انقر على رمز [↑] "مشاركة العرض" "**Share screen** "الآن.

C. Click on one of the tabs (entire screen, window or tab).

- أنقر على احد التبويبات (الشاشة بالكامل أو نافذة أو علامة تبويب)

D. Then, click on the **Share** button.

- ثم اضغط علي الزر مشاركة.



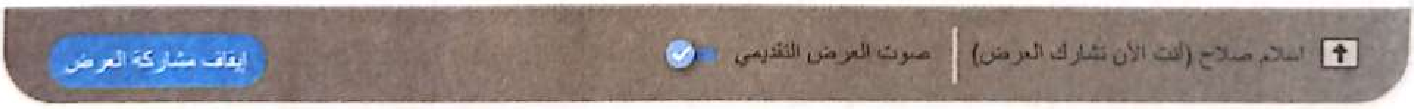


6 Stop sharing presentation

يقاف مشاركة العرض

▶ **In the Google Meet window, click "Stop sharing".**

ي نافذة Google Meet، انقر على "إيقاف مشاركة العرض" "Stop sharing"



Activity

Dear student, In cooperation with your partners and with the help of your teacher , you want to hold a meeting with your partners to prepare and get ready to discuss one of the projects using Google Meet , write :

- Steps to create an instant meeting for the teamwork.

....

....

entire	كامل	share	يشارك	button
specific	محدد/معين	icon	رمز	

- Send the meeting link to your team .
- Write down the steps to share your screen for the team to watch a presentation that includes your ideas about the project goal and the steps to implement it.
- Listen to the rest of your colleagues by speaking during the meeting about their opinions and suggestions about the project in an organized and smooth manner.

....

....

Pop Quiz

▶ **Put (✓) or (✗) for the following sentences :**

1. Google Meet is a video conferencing service that enables users to work together on projects. ( )
2. When you are allowed to talk during a meeting, click on camera icon and talk. ( )
3. To share the presentation with participants click **"Stop Sharing"**. ( )

Stop !

استمع إلى ملخص الدرس

نقاط هامة وعبارات استرشادية تمكنك من تلخيص وإتقان الدرس.

Lesson Summary

- "Google Meet" is a video conferencing service developed by Google that enables users to conduct group video calls, share screens and work together on joint projects.

  - "Google Meet" هو خدمة مؤتمرات الفيديو التى طورتها شركة Google ليتيح للمستخدمين (إجراء مكالمات فيديو جماعية، مشاركة الشاشات والتجهيز لأنتاج المشروعات المشتركة.

- You can start an instant meeting in "Google Meet" by clicking on the "New meeting button " → Start an instant meeting → copy icon to share the meeting link → send the meeting link to the participants.

  - يمكنك بدء اجتماع فورى من خلال الضغط على زر "اجتماع جديد" ← بدء اجتماع فورى ← أيقونة نسخ لمشاركة رابط الاجتماع ← إرسال الرابط إلى المشاركين.

- If you are invited to a meeting through a link, you should not send the meeting link to someone else, and you must ask the meeting owner's permission.

  - إذا تمت دعوتك إلى حضور اجتماع ما من خلال رابط فلا يجب إرسال رابط الاجتماع إلى شخص آخر إلا بعد استئذان صاحب الاجتماع.

- You can share your entire screen with participants by clicking on [↑] the "Share screen" icon now.

  - يمكنك مشاركة شاشتك بأكمالها مع المشاركين من خلال النقر على رمز "مشاركة العرض".

How to deal with the exam

كلمات و عبارات إسترشادية تساعدك على حل أسئلة الامتحان.

Topic	Guiding words	Exam items
Google Meet and Project Management	Google account	You must have a "Google account" to access the "Google Meet" service.
	New meeting	You can start an instant meeting in "Google Meet" by clicking on the "New meeting" button.
	meeting - a later time	The " Google Meet" application also enables you to create a meeting for a later time and keep its link until the time you want to meet .
	In call messages	You can communicate with the invitees by sending messages to the participants in the session by clicking on the "In call message" icon.

General Exercises

On Lesson Seven

يمكنك حل التدريب
وتصويبه إلكترونيا



▸ If you got (red) you need to revise the lesson again.

ممتاز (blue) جيد جدا (green) جيد (yellow) غير جيد (red)

قم بتقييم نفسك بالعلامات الموضحة وإذا حصلت على (red) (غير جيد) قم بمراجعة الدرس مرة أخرى من الصفحة السابقة.

El-Moasser Exercises

1 Choose the correct answer from a, b, c or d.

1. Having .... is one of the conditions for using the Google Meet application .
   a. smartphone b. computer
   c. Google Account d. a specific program

2. One of the advantages of using the Google Meet application is the ability to ....
   a. make group calls b. edit images c. play games d. delete files

3. You share your screen with your colleagues during a Google Meet meeting by clicking on "................" icon.
   a. Share Screen b. Hand
   c. Save d. Copy

4. You can stop sharing the presentation with your colleagues during a Google Meet meeting by clicking on "................" .
   a. Stop sharing b. Save link
   c. Stop installation d. Turn off the microphone

5. Click on the "................" icon to ask to speak during the Google Meet meeting.
   a. Hand b. Camera
   c. Microphone d. Message

2 Complete the following sentences.

1. You can send a message to other participants in a Google Meet meeting through ....
2. One of the tips for a successful Google Meet meeting is ....
3. To access the Google Meet application, you must have ....
4. The Google Meet service allows users to ....

3 Put (✓) or (×) for the following sentences.

1. The Google Meet application can be used to share files. (
2. The Google Meet service allows users to create collaborative projects. (
3. You can turn off the audio during a "Google Meet" meeting by clicking on "Turn off the microphone". (
4. You can access a Google Meet meeting through the meeting link. (

Student's Book Exercises

1 Choose the correct answer from a, b, c or d.

1. "Google Meet" is ....
   a. audio-only service b. voice-only service
   c. storage service d. video conferencing service
2. Through .... you can make calls, group video, share screens, and chat.
   a. "Google Account" b. "Google Docs" c. "Google Meet" d. "Google Drive"
3. To access the "Google Meet" service, you must have "................" .
   a. Yahoo account b. Google account c. Bank account d. Electronic wall
4. The "Google Meet" application is considered one of the ways of .... communication.
   a. indirect b. direct c. slow d. difficult
5. One of "Google Meet" features is ....
   a. sharing screens b. talking at any time
   c. indirect communication d. slow communication for audio and vide
6. To express your opinion in an organized manner during a "Google Meet" meeting, you can click on ....
   a. Meeting link b. Hand icon
   c. Talk at any time d. Exit before the end of the meeting
7. .... is one of general rules that must be followed during the meeting .
   a. Talking at any time
   b. Listening, hearing and turning off the microphone
   c. Giving the meeting link to anyone
   d. Leaving before the end of the meeting

8. To invite others to a Google Meet meeting, you must send them ....
   a. meeting address
   b. meeting link
   c. meeting image
   d. your home address

9. To create a meeting next week through Google Meet, you choose ....
   a. Start an instant meeting
   b. Meeting for a later time
   c. Stop sharing the presentation
   d. Sharing screens

10. You have been invited to a Google Meet meeting, to join the meeting you must click on ....
   a. meeting address
   b. meeting link
   c. meeting image
   d. your home address

11. To express your opinion in an organized manner during a Google Meet meeting, you can ....
   a. speak at any time
   b. leave before the meeting ends
   c. send a message
   d. stop sharing the presentation

12. When you are invited to a meeting through a link, you must ....
   a. not send the meeting link to others
   b. speak without permission
   c. send the meeting link to anyone
   d. leave the meeting

13. When you finish showing your screen during the meeting, you must click ....
   a. Do not send the meeting link to others
   b. Talk without permission
   c. Stop sharing the presentation
   d. Share screens

14. During a "Google Meet" meeting, and to organize the meeting, when speaking, you must ....
   a. speak at any time
   b. raise you hand
   c. leave the meeting
   d. send the meeting link to others

15. To help organize sessions, talk and intervene in an organized and smooth manner ....
   a. leave the meeting
   b. listen to the speaker
   c. speak at any time
   d. open the microphone

قم بتلوين الدائرة باللون
المناسب لمستواك.



LESSON **8**

Database Design



Databases : قواعد البيانات



* A collection of data and information organized and linked to each other. It is similar to a library in which books are kept, but instead of books, data and information are stored.

- هى مجموعة من البيانات والمعلومات المنظمة والمرتبطة مع بعضها البعض. تشبه المكتبة التى تحفظ بها الكتب، لكن بدلًا من الكتب، تخزن البيانات والمعلومات.

* A database is used to store and retrieve information easily and efficiently. Information is stored and managed digitally using dedicated programs and applications.

- تستخدم قاعدة البيانات لحفظ المعلومات واسترجاعها بسهولة وكفاءة. حيث يتم تخزين المعلومات وإدارتها بشكل رقمى باستخدام برامج وتطبيقات مخصصة.

The importance of databases in our lives أهمية قواعد البيانات فى حياتنا

1. Saving students' information at school including name, date of birth, home address, etc.

١. حفظ بيانات الطلاب فى المدرسة **مثل**: الاسم - تاريخ الميلاد - عنوان السكن، إلخ.

2. Saving medical records in hospitals including information like the patient's name, address, attending physician's name, and the date of patient's last visit.

٢. حفظ السجلات الطبية فى المستشفيات تتضمن معلومات **مثل**: اسم المريض - عنوان السكن - اسم الطبيب المعالج - تاريخ آخر زيارة للمريض.

3. Tracking inventory in stores including product name, manufacturer, manufacturing date, and price.

٣. تتبع المخزون فى المتاجر **مثل**: اسم المنتج - الشركة المصنعة - تاريخ التصنيع - السعر.

collection	مجموعة	organized	منظم	inventory	مخزون	store	يحفظ
retrieve	استرجاع	dedicated programs	تطبيقات مخصصة	linked	مرتبطة	medical records	سجلات طبية
tracking	تتبع			manufacturer	الشركة المصنعة		

Advantages of using databases مميزات استخدام قواعد البيانات

Organization التنظيم	Efficiency الكفاءة	Accuracy الدقة	Security الأمان	Sharing المشاركة
Easy storage and retrieval of data. سهولة تخزين البيانات واسترجاعها.	Quick access to data. الوصول السريع إلى البيانات.	Ensuring data validity and reducing errors. ضمان صحة البيانات وتقليل الأخطاء.	Protecting data from unauthorized access. حماية البيانات من الوصول غير المصرح به.	Making data available to multiple users. إتاحة البيانات لمستخدمين متعددين.

Uses of databases استخدامات قواعد البيانات in:

- **Websites** المواقع الإلكترونية — Such as storing user and product data.
  تخزين بيانات المستخدمين والمنتجات.
- **Data analysis** تحليل البيانات — Such as analyzing big data and extracting knowledge.
  تحليل البيانات الضخمة واستخراج المعرفة.
- **Scientific research** البحث العلمى — Such as storing and analyzing experimental data.
  تخزين البيانات التجريبية وتحليلها.
- **Business applications** التطبيقات التجارية — Such as customer relationship management systems, and enterprise resource planning systems.
  أنظمة إدارة علاقات العملاء ، وأنظمة تخطيط موارد المؤسسة.

Big Data البيانات الضخمة

* The term Big Data refers to very large and diverse sets of structured, unstructured and semi-structured data that continue to grow significantly over time .

– يشير مصطلح البيانات الضخمة إلى مجموعات كبيرة للغاية ومتنوعة من البيانات المنظمة وغير المنظمة وشبه المنظمة التى تستمر فى النمو بشكل كبير مع مرور الوقت.

* These data sets are so large and complex in terms of size, growth rate and diversity that traditional data management systems cannot store, process and analyze them.

– مجموعات البيانات هذه ضخمة جدًا ومعقدة من حيث الحجم وسرعة النمو والتنوع، بحيث لا تستطيع أنظمة إدارة البيانات التقليدية تخزينها ومعالجتها وتحليلها.

* The amount of data is increasing and growing rapidly due to the rapid development of digital technologies, **such as** :

– تتزايد كمية البيانات وتنمو بسرعة نتيجة للتطور السريع للتكنولوجيا الرقمية، مثل :

- Artificial intelligence (AI) الذكاء الاصطناعى
- The Internet of Things (IoT) إنترنت الأشياء

accuracy	دقة	efficiency	كفاءة	users	مستخدمين	analyzing	تحليل
extracting	استخراج	knowledge	المعرفة	experimental data	بيانات تجريبية	rapid	سريع
customer relationship	علاقات العملاء	term	مصطلح	complex	معقد	development	تطور

* As data continues to increase, expand, and spread → new big data tools are emerging to help companies collect, process, and analyze data at the speed needed to get the most out of it.

مع استـمرار زيادة وتوسـع البيانات وانتشارها ← تظهر أدوات جديدة للبيانات الضخمة لمساعدة الشركات على جمع البيانات ومعالجتها وتحليلها بالسرعة اللازمة للحصول على أكبر استفادة منها.

Activity

Dear student : With the help of your teacher and the cooperation with your colleagues, search the Internet for the concept of a data table in databases.

Pop Quiz

▶ **Choose the correct answer from a, b, c or d.**

1. .... are a collection of data and information that linked to each other.
   a. Files　　b. Databases　　c. Pictures　　d. CDS
2. .... is very large and diverse sets of structured, unstructured and semi-structured data that continue to grow rapidly by the time .
   a. Database　　b. Paint program　　c. AI　　d. Big data

Data Table جدول البيانات

Data Table :

* **A Data Table** → is a basic element in building databases and is the only source of data within the database.

هو عنصر أساسى فى بناء قواعد البيانات وهو المصدر الوحيد للبيانات داخل قاعدة البيانات.

* A data table consists of rows and columns.

يتكون جدول البيانات من صفوف وأعمدة.

→ each row represents a single record of data → each column represents a specific field of data.

كل صف يمثل سجلًا واحدًا من البيانات ← وكل عمود يمثل حقلًا معينًا من البيانات.

basic	أساسى	record	سجل	source	مصدر
column	عمود	building	بناء	represent	يمثل
element	عنصر	field	حقل	row	صف

Creating a Data Table إنشاء جدول البيانات

* Many programs can create data table, such as a "student grades" data table.

- يمكن من خلال العديد من البرامج إنشاء جداول بيانات، مثل : جدول بيانات "درجات الطلاب".

Field حقل ↓

Record → سجل

	Student's name	Arabic grade	English grade	Computer grade
1	Amr	19	18	19
2	Yassmen	20	17	16
3	Ramy	15	19	14
4	Samar	17	18	16

Programs used to create a data table البرامج المستخدمة لإنشاء جدول بيانات

* With **Word** and **Excel** , you can create a data table, for example , create a data table for "student grades".

- من خلال برنامج Word وبرنامج Excel يمكن إنشاء جدول بيانات مثل إنشاء جدول بيانات "درجات الطلاب".

In Word

- you can create a simple table, but you cannot get a record of all students whose names include the letter "Y".
  - يمكن إنشاء جدول بسيط ولكن لا تستطيع الحصول على سجل بيانات كل الطلاب التى تتضمن أسماؤهم حرف «ى».
- it is used to create a simple data table.
  - يستخدم لعمل جدول بيانات بسيط.

In Excel

- you can arrange and sort student grades.
  - يمكن ترتيب وفرز درجات الطلاب.
- you can perform simple calculations.
  - إجراء عمليات حسابية بسيطة.
- it is difficult to use if you have large amount of complex data.
  - يصعب استخدامه إذا كان لديك كمية كبيرة من البيانات المعقدة.

simple بسيط	arrange ترتيب	perform إجراء
calculations عمليات حسابية	sort فرز	

Microsoft Access

* It is one of the applications used to create databases.

- هو أحد التطبيقات التى تستخدم لإنشاء قواعد البيانات.

* It builds a real database.

- فهو يبنى قاعدة بيانات حقيقية.

* You can build a complex structure for data and mange it more efficiently.

- يمكنك بناء هيكل معقد للبيانات وإدارتها بشكل أكثر كفاءة.

Access

We use Microsoft Access

when

1. You have a large amount of complex data. يكون لديك كمية كبيرة من البيانات المعقدة.
2. You need to create relations between data. تحتاج إلى إنشاء علاقات بين البيانات.
3. You want to create custom applications to manage data. تريد إنشاء تطبيقات مخصصة لإدارة البيانات.
4. You need higher data security. تحتاج إلى أمان أعلى للبيانات.

* You can create a database under the name **"Student Results"** by performing the following steps on your computer:

يمكنك إنشاء قاعدة بيانات تحت اسم **"نتائج الطلاب"** من خلال إجراء الخطوات التالية على جهاز الكمبيوتر:

✓ Open the **Microsoft Access application.** — قم بفتح تطبيق **Microsoft Access**.

✓ Create a database under the name **"Student Results".** — إنشئ قاعدة بيانات تحت اسم "نتائج الطلاب".

✓ **Record the steps** you have taken. — دون الخطوات التى قمت بها.

Creating a database

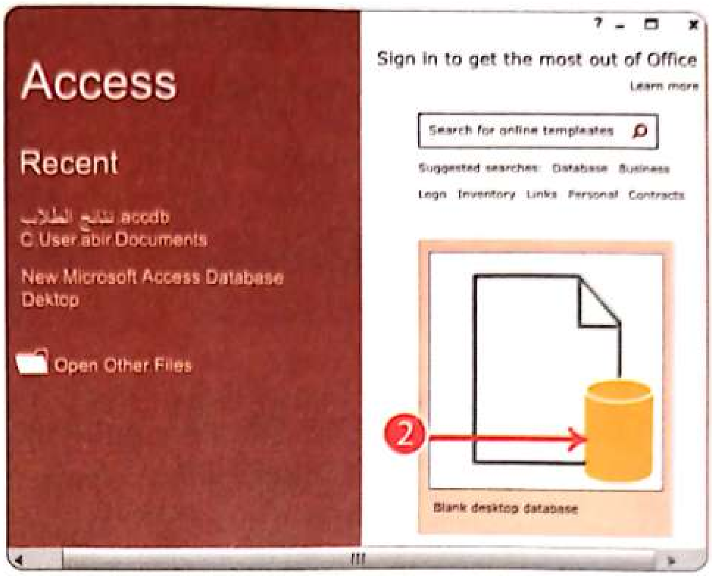
1 Open the **Access application.**

١. أفتح تطبيق برنامج **Access**.



2 Choose **Blank desktop database** to create a new blank database.

٢. اختر**Blank desktop database** وذلك لإنشاء قاعدة بيانات فارغة جديدة.

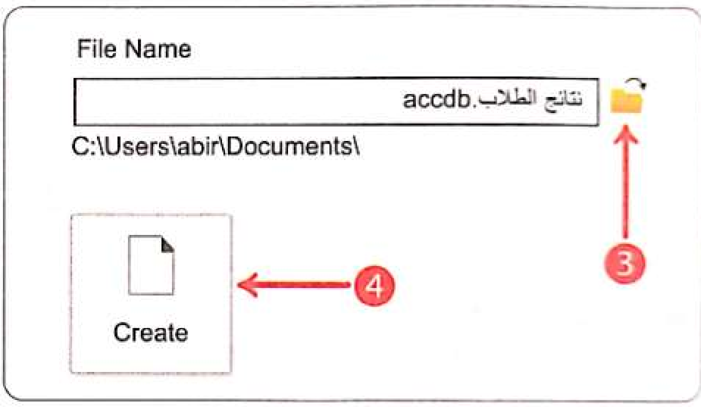


3 Type a name for the database, which is **"Student Results"**.

٣. اكتب اسم لقاعدة البيانات وهو "نتائج الطلاب".

4 Click **"Create"**.

٤. أضغط على**"Create"**.



* A database will be created under the name "**Student Results**".

فيتم إنشاء قاعدة بيانات تحت اسم "نتائج الطلاب".

Pop Quiz

▶ **Put (✓) or (✗) for the following sentences :**

1. A Spreadsheet is the only source of data of databases. ( )
2. You can use Excel when you have a large amount of complex data. ( )
3. We can build a complex structure of data and manage it more efficiently using "Word". ( )

blank فارغ | create ينشئ

Steps to create a Table in Access خطوات إنشاء جدول في برنامج Access

You can create a Table in Access by doing the following :

A "Table Design"
"تصميم الجدول"

To write the names of the table fields and specify their data type.
لكتابة أسماء حقول الجدول وتحديد نوع بياناتها.

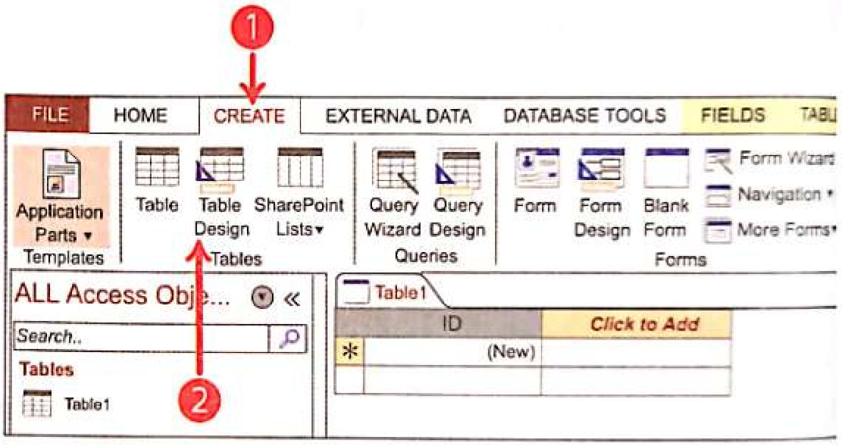
B "Datasheet View"
"عرض بيانات الجدول"

To enter and display the table data.
لإدخال وعرض بيانات الجدول.

A Table Design تصميم الجدول

* To Choose the "**Table Design**" style, follow the following steps:

* لاختيار نمط "تصميم الجدول" يتم اتباع الخطوات التالية :



1 Choose "**CREATE**".

١. اخترإنشاء "**CREATE**"

2 Choose the "**Table Design**" .

٢. اختر "تصميم الجدول" "**Table Design**".

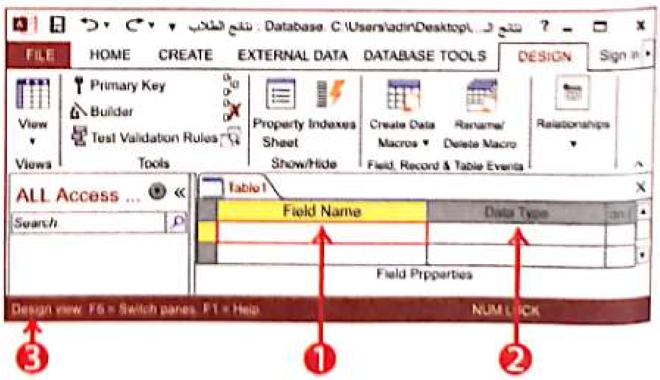
Table Design Window Interface واجهة نافذة تصميم الجدول

* **The Table Design** window opens , and consists of : يتم فتح نافذة تصميم الجدول وتتكون من :

1 To write the **field name**. ١. لكتابة اسم الحقل.

2 To choose the **field data type**. ٢. لاختيار نوع البيان.

3 Design **display style**. ٣. نمط عرض التصميم.



"Window of Table Design" "نافذة تصميم الجدول"

enter	إدخال	specify	تحديد	design	تصميم	field data type	نوع البيان (الحقل)
style	نمط	display	عرض	window	نافذة	interface	الجهة

Example of steps to design a "Student Grades" table : مثال لخطوات تصميم جدول "درجات الطلاب" :

→ In the table design window → the table fields are created by typing the field name → selecting the field statement type.

← فى نافذة تصميم الجدول ← يتم إنشاء حقول الجدول من خلال كتابة اسم الحقل ← تحديد نوع بيان الحقل.

Type the following field names and choose their statement type
قم بكتابة أسماء الحقول التالية واختر نوع بياناتها

Student number field which is "**Id**" حقل رقم الطالب وهو ID	Name الاسم	Arabic grade درجة العربى	English grade درجة الإنجليزى	Computer grade درجة الكمبيوتر

1 Type the field name "**Id**" student number.

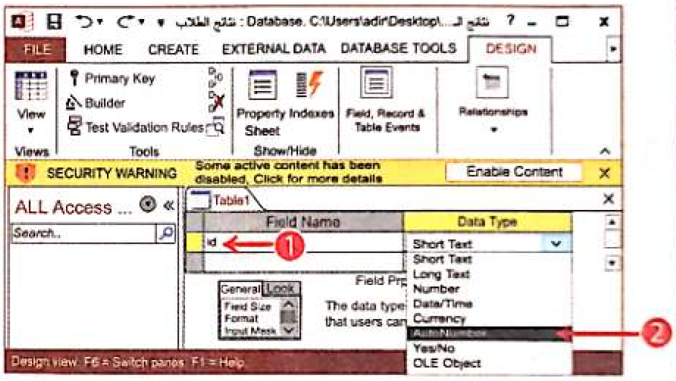
- اكتب اسم الحقل "**ID**" رقم الطالب.

2 Choose the field statement type from the drop-down list "**AutoNumber**".

- اختر نوع **بيان الحقل** من القائمة المنسدلة.

3 **Write** the rest of the field names, and **select the appropriate statement type** for each field.

- **أكتب** باقى أسماء الحقول، وحدد **نوع البيان** المناسب لكل حقل.

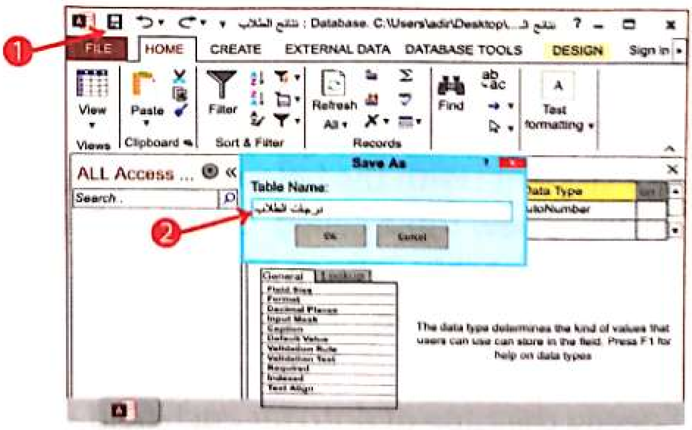


Save the table حفظ الجدول

1 Click the "**Save**" icon. أضغط أيقونة حفظ.

2 Type the table name "**Student Grades**".

اكتب اسم الجدول "درجات الطلاب".



يحدد	rest of	باقى
أيقونة	list	قائمة

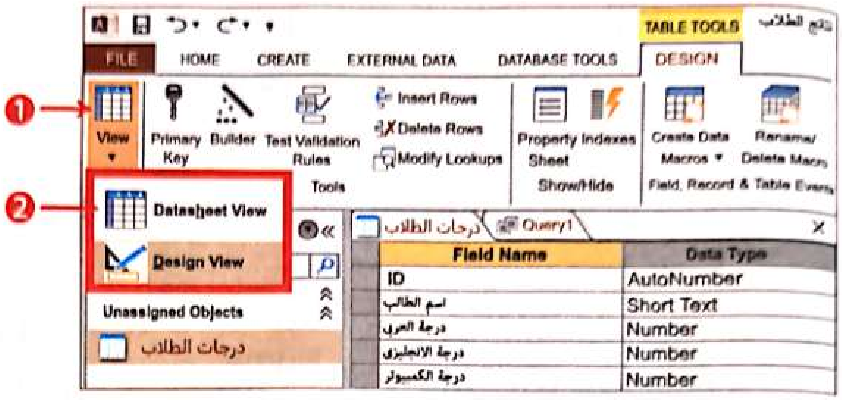
B Datasheet View عرض بيانات الجدول

* To enter and view the table data لإدخال وعرض بيانات الجدول

1 Choose "**View**". - اختر "**View**".

2 Choose "**Datasheet View**", and the data view window will appear.

- اختر "عرض البيانات" "**Datasheet View**"، فتظهر نافذة عرض البيانات.



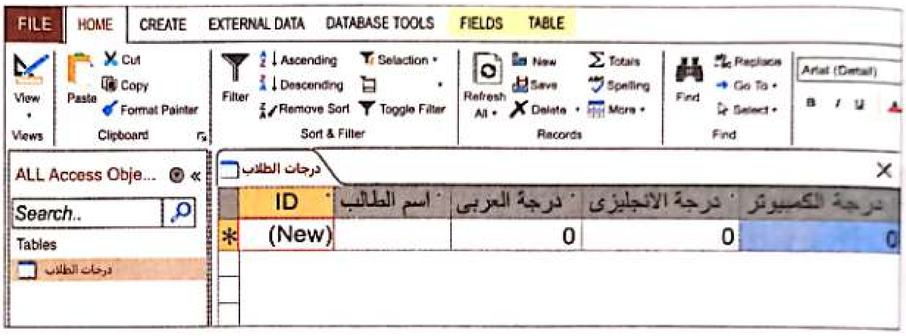
3 The following window will appear : - سوف تظهر لك النافذة التالية.

4 Enter your data and your colleagues' data in the table.

- أدخل بياناتك وبيانات زملائك بالجدول.

5 To return to the design mode from "**View**", select "**Desgin View**".

- للرجوع لنمط التصميم من "View"، يتم اختيار "Design View".



"Window of Datasheet View نافذة عرض البيانات"

Pop Quiz

▶ **Complete the following sentences.**

1. .... is used to enter and display the table data.
2. A Table Design consists of .... , ... and ....
3. To save a table click ".............." icon, then write the table name.

Activity

Dear student : With the help of your teacher and in cooperation with your partners :

- Create a new table called "**Student Grades**".
- So that the table column titles are as follows :

Students's name	Arabic grade	English grade	Computer grade

- Specify the type of data for each field.
- Save the table under the name "**Student Grades**".
- Record the steps you took.

enter	إدخال	appear	يظهر	return	يرجع / يعود

Primary Key المفتاح الأساسى

* It is a field in a database table that is used to uniquely identify each record in that table, and the **primary key value is never repeated** within the same table.

- هو حقل فى جدول قاعدة بيانات يستخدم ليميز بشكل فريد كل سجل فى ذلك الجدول، **وقيمة المفتاح الأساسى لا تتكرر أبدًا** داخل الجدول نفسه.

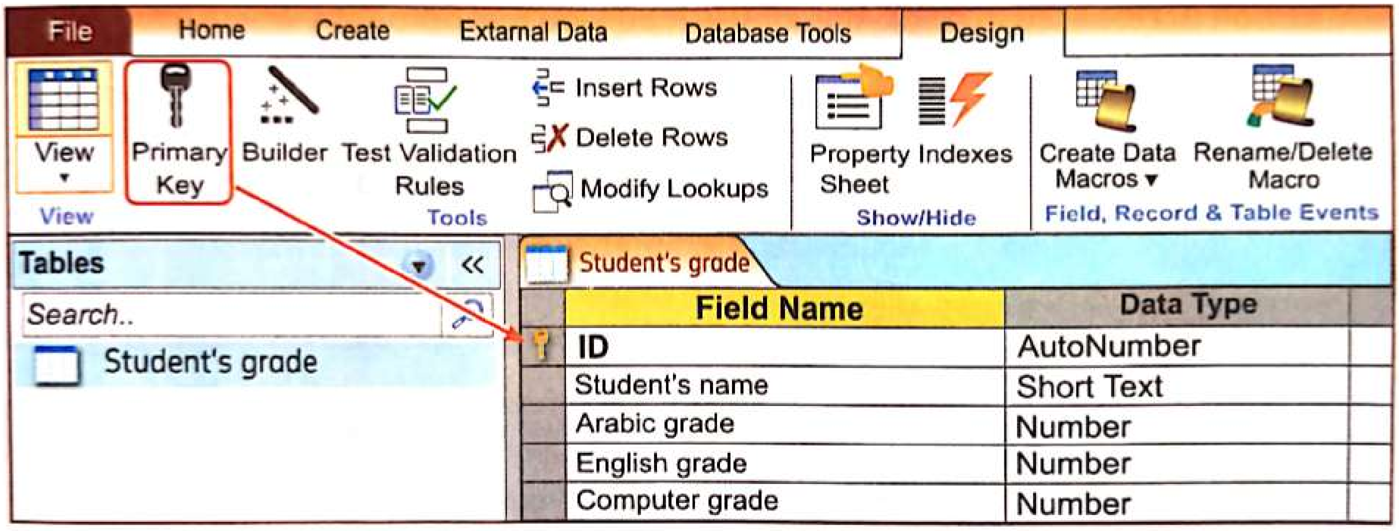
→ **Primary Key for the "Student Grades" table :** ← **المفتاح الأساسى لجدول "درجات الطلاب" :**

* The "**ID**" field was chosen as the primary key, because it is an automatic number given to the student.

- تم اختيار حقل "**ID**" كمفتاح أساسى لأنه رقم تلقائى يُعطى للطالب.

* Each student has a unique number that is not repeated by any other student.

- كما أن لكل طالب رقم فريد لا يتكرر لدى أى طالب آخر.



Make the "**id**" field the **Primary Key** for the "**Student Grades**" table.

جعل الحقل "**ID**" مفتاح أساسى "**Primary Key**" لجدول "درجات الطلاب".

uniquely	بطريقة فريدة	unique	مميز	value	قيمة
repeated	متكرر	automatic	تلقائى	primary key	مفتاح أساسى

Stop here !



استمع إلى
ملخص الدرس

نقاط هامة وعبارات استرشادية تمكنك من تلخيص وإتقان الدرس.

Lesson Summary

- Database is a collection of data and information organized and linked to each other.
  - قاعدة البيانات هى مجموعة من البيانات والمعلومات المنظمة والمرتبطة مع بعضها البعض.
- Advantages of using databases are organization, efficiency accuracy, security and sharing.
  - تتميز قواعد البيانات بالتنظيم والكفاءة، والدقة والأمان والمشاركة.
- Big Data refers to very large and diverse sets of structured, unstructured and semi-structured data that continue to grow significantly over time.
  - البيانات الضخمة تشير إلى مجموعات كبيرة للغاية ومتنوعة من البيانات المنظمة والغير منظمة وشبه المنظمة التى تستمر فى النمو بشكل كبير مع مرور الوقت.
- A data table is a basic element in building databases.
  - جدول البيانات هو عنصر اساسى فى بناء قواعد البيانات.
- Microsoft Access used to create databases. It builds a real database, where you can build a complex structure for data and manage it more efficiently.
  - Microsoft Access هو يستخدم لإنشاء قواعد البيانات فهو يبنى قاعد بيانات حقيقية ويكن بناء هيكل معقد للبيانات وإدارتها بشكل أكثر كفاءة.
- Primary key is a field in a database table that is used to uniquely identify each record in that table.
  - المفتاح الأساسى فى الجدول هو حقل جدول قاعدة البيانات يستخدم ليميز بشكل فريد كل سجل فى ذلك الجدول.

How to deal with the exam

كلمات و عبارات إسترشادية تساعدك على حل أسئلة الامتحان.

Topic	Guiding words	Exam items
Database Design	data analysis	Databases are used in data analysis.
	store-retrieve	A database is used to store and retrieve information easily and efficiently
	Blank desktop database	Choose Blank desktop database to create a new blank database.
	rows-columns	A spreadsheet consists of rows and columns, where each row "Table Design" represents a single record of data, and each column represents a specific field of data.
	Table Design	Table Design is used to write the names of the table fields and specify their data type.
	Datasheet View	Datasheet View is used to enter and display the Table Data.

General Exercises

On Lesson Eight



يمكنك حل التدريب
وتصويبه إلكترونيًا

▸ If you got 🔴 you need to revise the lesson again.

🔵 ممتاز 🟢 جيد جدا 🟡 جيد 🔴 غير جيد

قم بتقييم نفسك بالعلامات الموضحة وإذا حصلت على 🔴 (غير جيد) قم بمراجعة الدرس مرة أخرى من الصفحة السابقة.

El-Moasser Exercises

1 Choose the correct answer from a, b, c or d.

1. .... are a collection of organized and related data and information.
   a. Databases b. Records
   c. Documents and images d. Numbers

2. All of the following are advantages of using databases except ....
   a. efficiency b. accuracy
   c. organization d. difficulty in accessing data

3. "Big Data" is .... sets of data.
   a. small b. medium
   c. tall d. huge, organized and unorganized

4. The "Data Table" ....
   a. is an essential element in building databases
   b. is a secondary element in building databases
   c. is an unnecessary element in building databasses
   d. consists of rows only

5. The correct way to save a Data Table in "Access" is by clicking on .... icon.
   a. "New" b. "Create" c. "Start" d. "Save"

6. The correct way to enter and display "Data Table" in "Access" is through "................" .
   a. Design View b. Table design c. Datasheet View d. Screen View

2 Complete the following sentences.

1. The Word program is used to create .... data table.

Information is stored and managed digitally in databases using dedicated ....

...rmation can be retrieved from databases in a/an .... way.

...abases allow .... data.

3 Put (✓) or (×) for the following sentences.

1. Advantages of using databases are provide the efficiency, accuracy, and organization. ( )
2. Databases don't provide the analysis of big data and the extraction of knowledge. ( )
3. The "Excel" program is used to perform simple mathematical operations. ( )
4. The "Word" program is used to build a complex data structure. ( )
5. When creating a table on "Access" through "Table Design", you enter and display the table data. ( )

Student's Book Exercises

* Put (✓) or (×) for the following sentences.

1. Databases are a collection of data and information that are not related to each other. ( )
2. Databases are information stored and managed manually using dedicated programs and applications. ( )
3. A database is an organized collection of data related to a specific subject. ( )
4. Databases are used to save student data in school. ( )
5. We use databases to track inventory in stores. ( )
6. It is difficult to use databases on websites. ( )
7. A data table is a non-essential element in building databases. ( )
8. A data table is the only source of data within a database. ( )
9. In a data table, each row represents more than one record of data. ( )
10. We use "Microsoft Access" when we have a large amount of complex data. ( )
11. We use the "Design View" of the table to write the names of the table fields and determine the type of statement. ( )
12. We use the "Datasheet View" of the table to enter and display the table data. ( )
13. We determine the type of statement for the student name field "Text" to perform calculations on it. ( )
14. We specify the type of the statement of the degrees fields "Number" to perform a calculation on it. ( )
15. In the database table, we must specify for each column the type of statement it contains. ( )
16. The primary key field is used to uniquely identify each record in the table. ( )
17. The primary key value can be repeated within the same table. ( )



قم بتلوين الدائرة باللون المناسب لمستواك. ◯

Revision

on Lessons 7 & 8



مراجعة عامة على الدرسين السابع والثامن فى ورقة واحدة

Lesson 7 : Google Meet and Project Management

1

"Google Meet"

- It is a video conferencing service developed by Google that enables users to:
- contact group video calls
- share screens
- chat
- collaborate in real time
- work together on joint projects among students

Access to " Google Meet"

- From your PC via the link https://meet.google.com
- By downloading the " Google Meet" application by using the Google Play Store for Android devices.

2

- **You can start an instant meeting in "Google Meet" by :**

1. Click on the "New Meeting" button.
2. Click on "Start" an instant meeting.
3. Click on the "Copy" icon ⧉ to share the meeting link.
4. Send the meeting link to the participants via one of the communication tools.

- **Create a meeting for a later time :**

1. Click on "Create a meeting for a later time".
2. A small window will appear with a link to the session.
3. Copy the meeting link.
4. Send the link to the people you want to hold the meeting with.

Lesson 8 : Database Design

1

Databases

- A collection of data and information organized and linked to each other.
- It is used to store and retrieve information easily and efficiently, such as : students' information and medical records.
- Information is stored and managed digitally.
- From advantages of using databases (Organization, Efficiency, Accuracy, Security and Sharing)

Big Data

- Big Data refers to very large and diverse sets of structured, unstructured and semi-structured data.
- These data, sets are so large and complex in terms of size, growth rate and diversity that traditional data management systems cannot store, process and analyze them.

2

Data table

- It is a basic element in building databases and is the only source of data within the database. A data table consists of rows and columns.

Microsoft Access

- It is one of the applications used to create databases where you can build a complex structure for data and manage it more efficiently.

Primary Key

- It is a field in a database table that is used to uniquely identify each record in that table and the primary key value is never repeated within the same table.

Accumulative Test

On Lessons 7& 8



اختبار تراكمى على الدرسين السابع والثامن

1 Choose the correct answer from a, b, c or d.

1. The "Google Meet" application is a/an .... application.
   - a. instant messaging
   - b. email
   - c. audio and video calls
   - d. file management

2. The "Google Meet" application was developed by ....
   - a. Microsoft
   - b. Apple
   - c. Google
   - d. Facebook

3. The main purpose of the "Google Meet" application is ....
   - a. sharing files
   - b. making group audio and video calls
   - c. editing images
   - d. playing games

4. You can create a new table in "Access" by selecting ....
   - a. "Insert"
   - b. "Create"
   - c. "Open"
   - d. "Save"

2 Put (✓) or (x) for the following sentences.

1. Databases are a set of unorganized data and information. ( )
2. Information retrieved and stored in databases randomly. ( )
3. Databases do not allow organization. ( )
4. Google Meet allows the user to edit and modify images. ( )
5. You can join a Google Meet meeting through the link sent to you by the meeting organizer. ( )
6. When you are allowed to speak in a "Google Meet", the camera icon will open and you can speak. ( )
7. You can share your entire screen or just a tab by clicking on "Share Screen" icon. ( )

يمكنك المراجعة باستمرار (تراكمية)
من خلال الصفحة السابقة.

LESSON 9

Forms & Queries



First Forms in databases : النماذج فى قواعد البيانات :

Form النموذج

* It is a graphical interface designed specifically to interact with data stored in the database. It is a screen that displays specific information from the database and allows the user to enter, modify or delete this information in an organized and convenient way.

- هو عبارة عن واجهة رسومية مصممة خصيصًا للتفاعل مع البيانات المخزنة فى قاعدة البيانات، فهو شاشة تعرض معلومات مُحددة من قاعدة البيانات وتتيح للمستخدم إدخال أو تعديل أو حذف هذه المعلومات بطريقة منظمة ومريحة.

Create a form إنشاء نموذج

* A new form can be created under the name **"Enter Student Grades"** using the **Form Wizard.**

- يمكن إنشاء نموذج جديد تحت اسم **"إدخال درجات الطلاب"** باستخدام **معالج النماذج**.

Example "To create a form from the current table "Student Grades"

مثال : لإنشاء نموذج من الجدول التالى "درجات الطلاب" :

1. Click on the table name **"Student Grades"** in the Navigation pane on the left of the screen, and the data for the **"Student Grades"** table will appear on the right of the screen.
   - انقر فوق اسم الجدول **"درجات الطلاب"** فى جزء التنقل Navigation Pane يسار الشاشة، فتظهر بيانات جدول **"درجات الطلاب"**، يمين الشاشة.
2. Choose the **Create tab.** - اختر علامة التبويب **Create**.
3. Click **Form.** - انقر فوق **Form**.

interface	واجهة	delete	يحذف	organized	منظم
display	يعرض	convenient	مريح	click	ينقر



* The **Access** program creates the form.

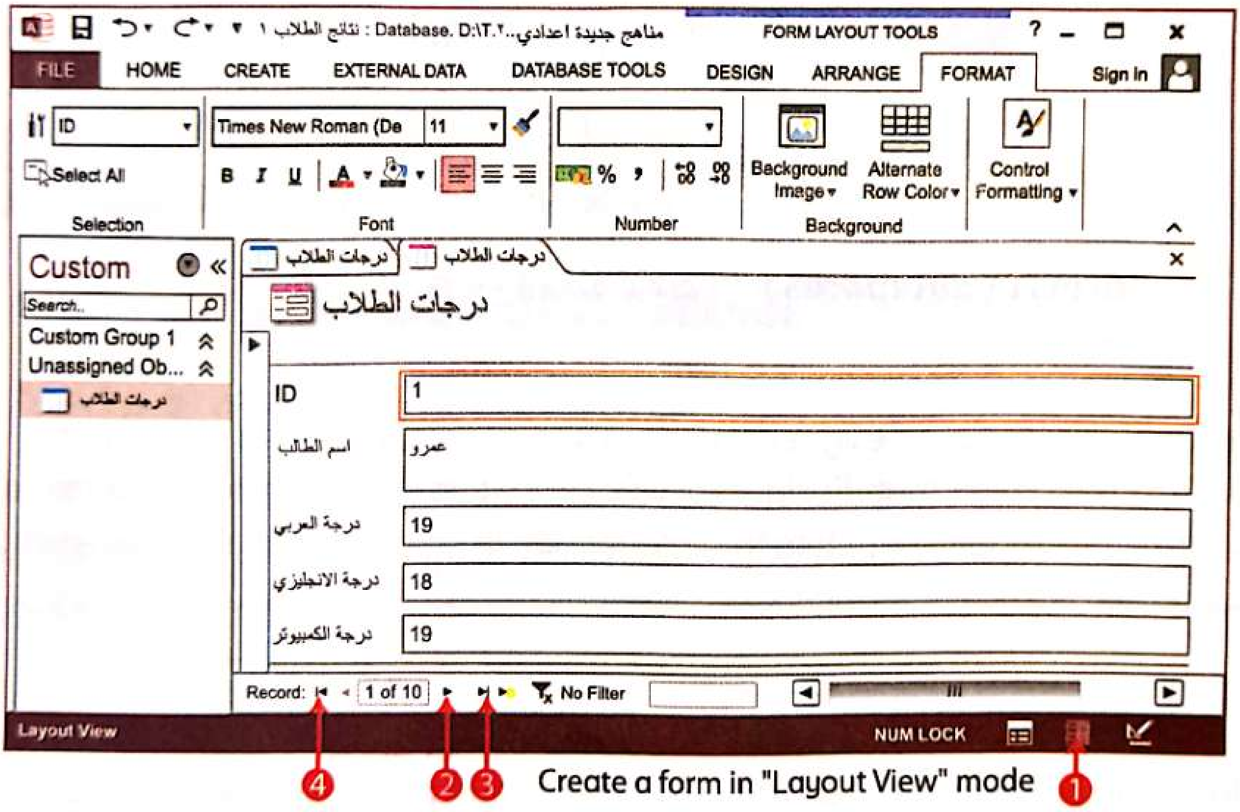
يقوم برنامج **Access** بإنشاء النموذج.

* And through the form "the data for each student's record is displayed individually".

من خلال النموذج يتم عرض "البيانات الخاصة بسجل كل طالب على حدا".

As in the following figure :

كما في الشكل التالي :



Create a form in "Layout View" mode

Layout view إنشاء نموذج في طريقة عرض التخطيط

1. The current window is called **Layout view**, where the data of the first record is displayed.

النافذة الحالية تسمى عرض التخطيط **Layout view** حيث يتم عرض بيانات السجل الأول.

2. Click on the **"Next record"** icon to display the data of the next record.

اضغط على أيقونة "السجل التالى" **"Next record"** لعرض بيانات السجل التالى.

3. Click on the **"Last record"** icon to display the data of the last record.

اضغط على أيقونة "آخر سجل" **"Last record"** لعرض بيانات آخر السجل.

4. Click on the **"First record"** icon to display the data of the first record.

اضغط على أيقونة "أول سجل" **"First record"** لعرض بيانات أول السجل.

record	يسجل	window	نافذة	individually	بشكل فردى
form	نموذج	current	حالي		

Note

* The form is used to enter and modify data in the "Student Grades" table.
  - يستخدم النموذج لإدخال وتعديل البيانات فى جدول "درجات الطلاب".
* All data entered through the form appears in the "Student Grades" table.
  - جميع البيانات التى تم إدخالها من خلال النموذج تظهر فى جدول "درجات الطلاب".
* Data can be entered through the spreadsheet or through the form.
  - يمكن إدخال البيانات من خلال جدول البيانات أو من خلال النموذج.
* There are several other ways to create a form in an Access desktop database.
  - هناك طرق أخرى مُتعددة لإنشاء نموذج فى قاعدة بيانات Access لسطح المكتب.

Pop Quiz

▶ **Choose the correct answer from a, b, c or d.**

1. A .... is a screen that displays specific information from the database.
   a. table   b. form   c. word   d. Big Data
2. You can create a new form using ....
   a. Word   b. Paint   c. Form Wizard   d. PowerPoint

Second Queries in databases ثانيًا : الاستعلامات فى قواعد البيانات

* Queries are tools used to obtain data from the database according to "**specific criteria or conditions**".
  - الاستعلامات هى أدوات تستخدم للحصول على البيانات من قاعدة البيانات وفقًا "لمعايير أو شروط محددة".
* And through the query, information can be obtained from the database based on the data stored in the database.
  - ومن خلال الاستعلام يمكن الحصول على معلومات من قاعدة البيانات اعتمادًا على البيانات المخزنة فى قاعدة البيانات.

Examples of queries
امثلة للاستعلامات

Create a query to display a list of students who scored more than 18 marks in English.
إنشاء استعلام لعرض قائمة بالطلاب الذين حصلوا على اكثر من ١٨ درجة فى مادة الانجليزى

Create a query to display data from a student's record.
إنشاء استعلام لعرض بيانات سجل لاحد الطلاب

modify	يُعدل	enter	يدخل	according	وفقًا
appear	يظهر	several	متعددة	database	قاعدة بيانات

Create a new query using the "Query Design" method

ناء استعلام جديد باستخدام طريقة "تصميم استعلام" "Query Design"

* Access provides many methods that allow you to create a query, for example :

يوفر برنامج Access العديد من الطرق التى تتيح إنشاء الاستعلام مثل :

Using the "Query Design" view :

طريقة عرض التصميم "Query Design"

* It is the method that we will discuss and is appropriate for what is required to be created.

هى الطريقة التى سوف نتناولها وتناسب المطلوب إنشائه .

* When using the Query Design method, you can have greater control over the details of the query design.

عند استخدام طريقة تصميم استعلام يُمكنك التحكم بشكل أكبر فى تفاصيل تصميم الاستعلام

Steps to create a new query using the Query Design method

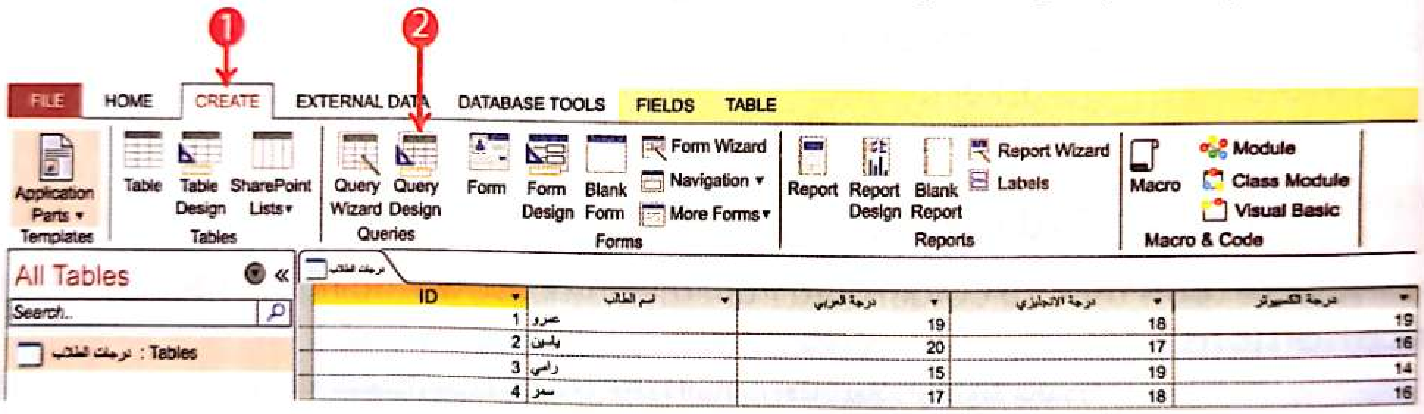
وات إنشاء استعلام جديد باستخدام طريقة تصميم استعلام .

1. Choose the **Create** tab.

اختر التبويب إنشاء **Create**.

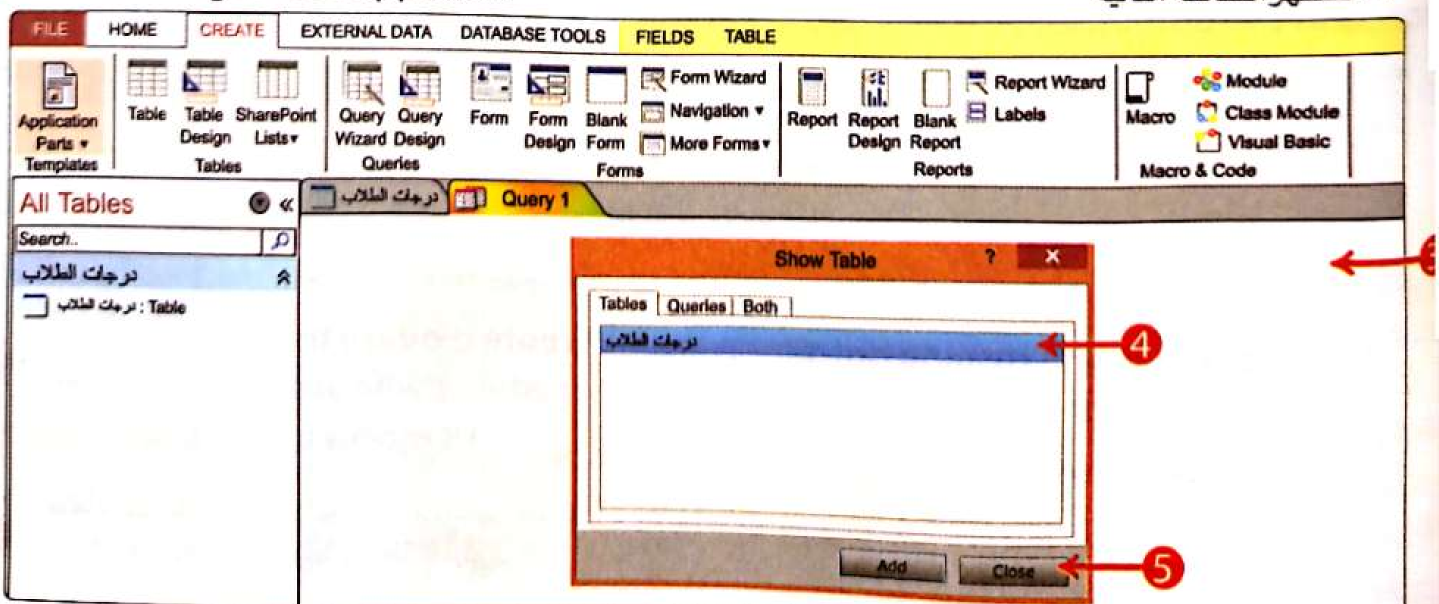
2. Click on **"Query Design"**

انقر فوق تصميم الاستعلام **"Query Design"**.



3. The following screen appears :

٣ . فتظهر الشاشة التالية



screen شاشة appear يظهر

4 Select the data source table to be used, which is "**Student Grades**".

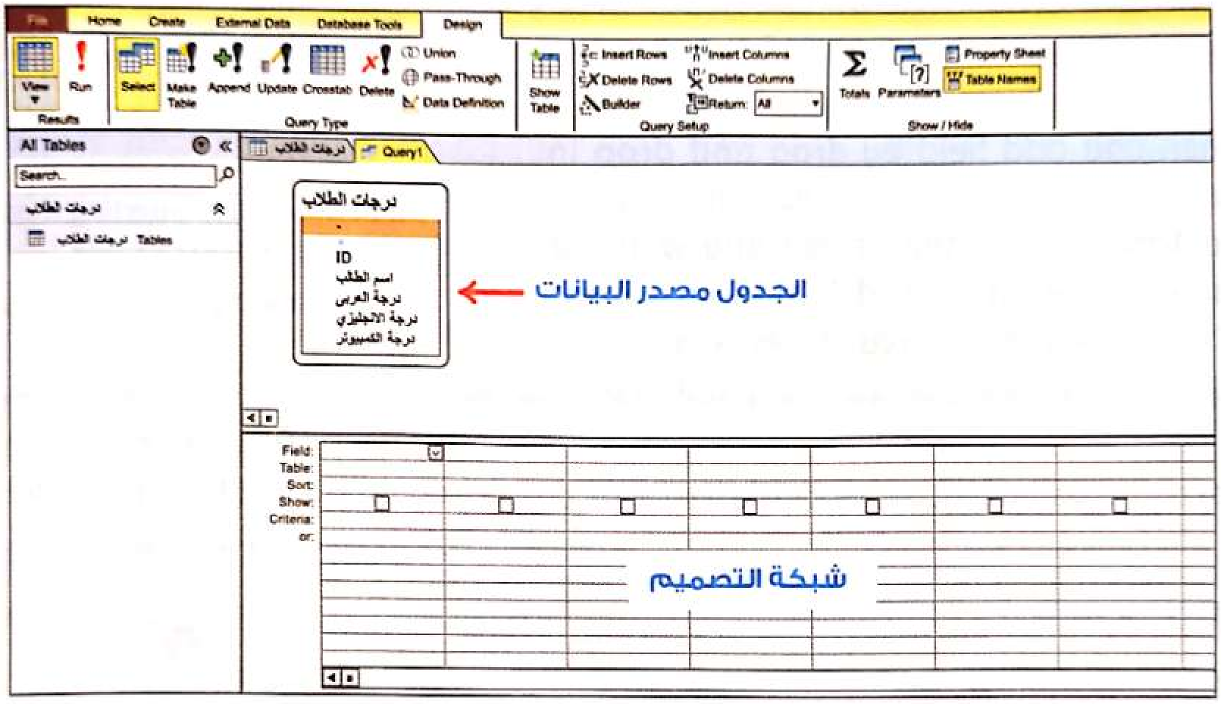
اخترجدول مصدر البيانات المطلوب استخدامه وهو "درجات الطلاب".

5 Click **Add**, then **Close**, the "**Design View**" Window will appear.

اضغط فوق إضافة **Add**، ثم إغلاق **Close** لتظهر نافذة تصميم الاستعلام "**Design View**".

Divided into two parts
وهى تنقسم إلى جزئين

- the upper part contains الجزء العلوى منها به → the data source table. الجدول مصدر البيانات
- the lower part is الجزء السفلى → the query design grid. شبكة تصميم الاستعلام



Window of "Design View" نافذة تصميم الاستعلام

Example مثال

Now you are required to create a query "It shows the names of all students and the Arabic grade only for each student".

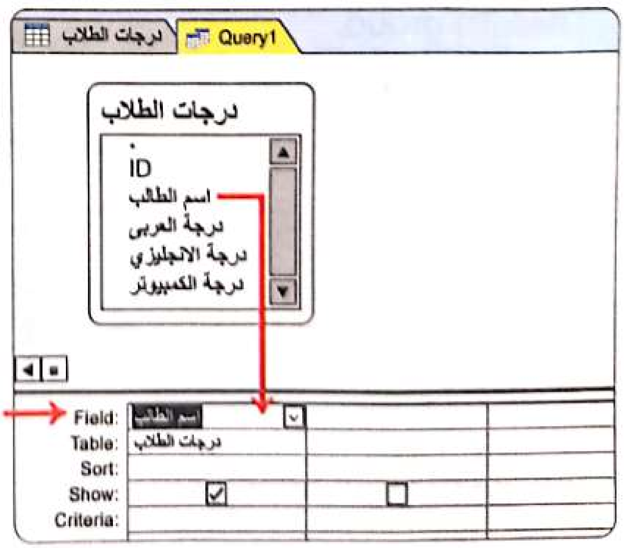
- والآن مطلوب إنشاء استعلام "يظهر فيه أسماء جميع الطلاب ودرجة العربى فقط لكل طالب".

* In this query we will deal with the fields of "**Student Grades**" table :

- في هذا الاستعلام سوف نتعامل مع حقول جدول "درجات الطلاب" :

* To do this, the field names are listed on the query design grid.

- ولعمل ذلك يتم إدراج أسماء الحقول على شبكة تصميم الاستعلام.



source	مصدر	lower	سفلى	fields	حقول
deal with	يتعامل مع	upper	علوى	listed	مدرجة

Add a field to the design grid : إضافة حقل لشبكة التصميم

1. Use the **drag and drop** method for the field name.
- استخدم طريقة **السحب والإلقاء** لاسم الحقل.

2. Drag the field from the data source table in the upper part of the "**Query Design**" window to the design grid, specifically to the "**Field**" field row in the lower part of the "**Query Design**" window.
- اسحب الحقل من جدول مصدر البيانات في الجزء العلوي في النافذة "**تصميم الاستعلام**"، لشبكة التصميم وبالتحديد إلى صف الحقل "**Field**" في الجزء السفلي من نافذة "**تصميم الاستعلام**".

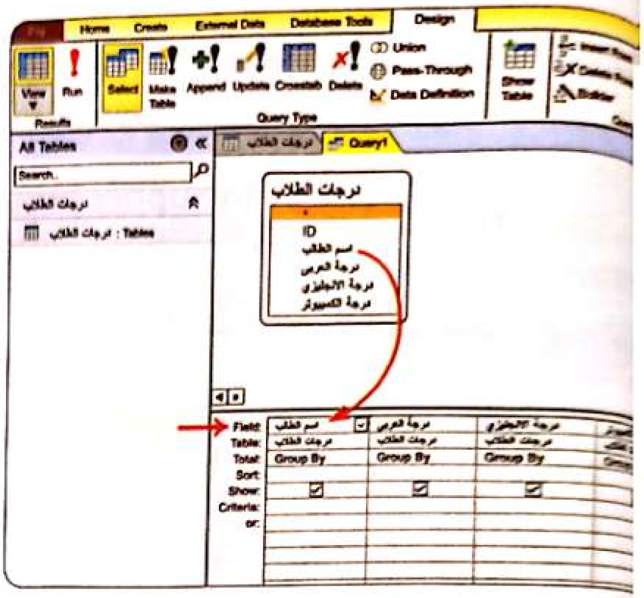


table fields after inserting them into the design grid

حقول الجدول بعد إدراجها في شبكة التصميم

3. When you add field by **drag and drop** in the design grid, Access automatically fills the **Table** row in the design grid with the name of the table used "**Student Grades**", to show the data source of this field.

عندما تضيف حقلًا **بطريقة السحب والإلقاء** في شبكة تصميم يقوم Access تلقائيًا بملء الصف جدول **Table** في شبكة التصميم باسم الجدول المستخدم "درجات الطلاب"، ليوضح مصدر بيانات هذا الحقل.

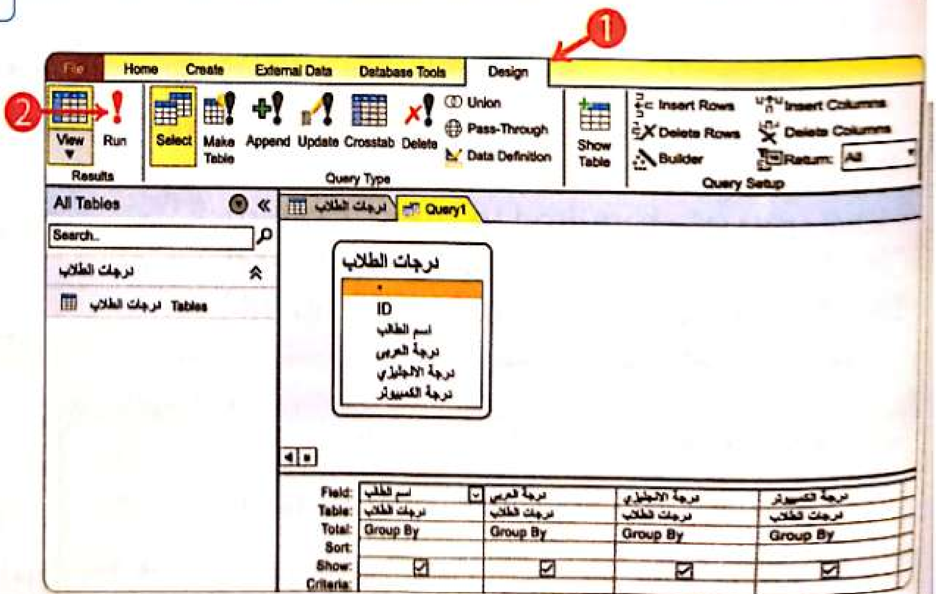
4. Insert the rest of the table fields to the design grid as shown in the following screen

قم بإدراج باقي حقول الجدول لشبكة التصميم كما بالشاشة التالية.

Execute the query تنفيذ الاستعلام

1. On the **Design** tab.
- بالتبويب **Design**.

2. Click on the **Run** icon in the **Results** group.
- اضغط على أيقونة **Run** في المجموع **Results**.

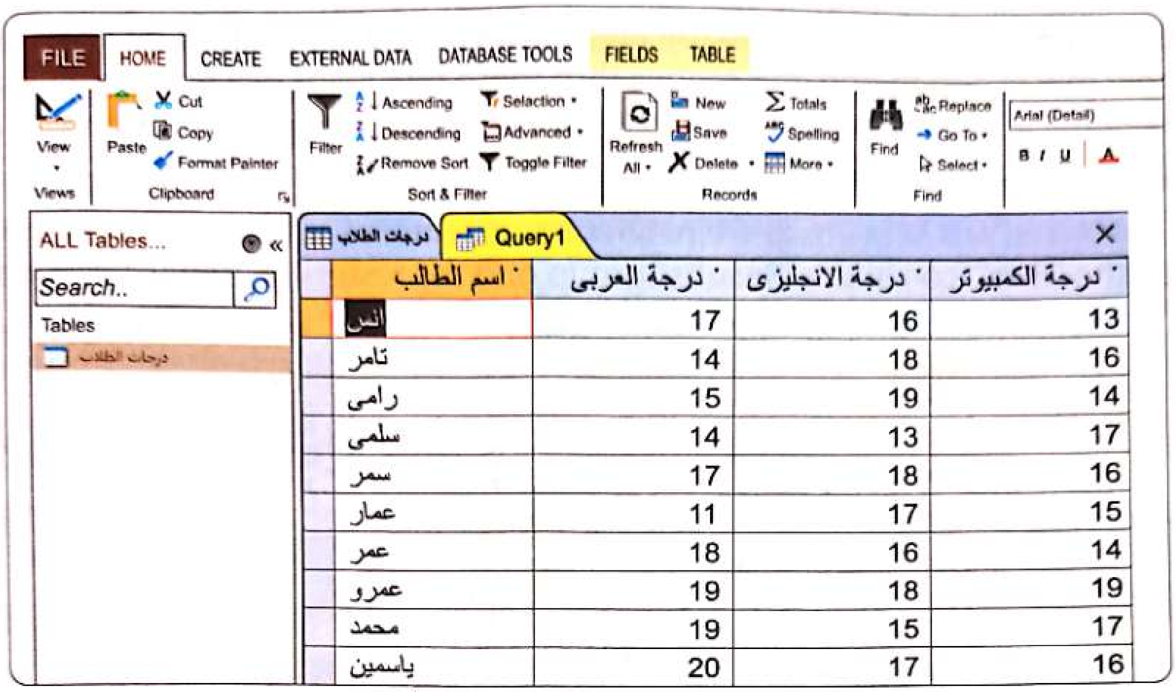


Executing the query طريقة تنفيذ الاستعلام

* The query result appears in the form of a table, showing all student data.

- فتظهر نتيجة الاستعلام على هيئة جدول، وتظهر به جميع بيانات الطلاب.

drag	سحب	execute	تنفيذ	group	مجموعة
drop	إلقاء	icon	أيقونة	automatically	تلقائيًا



اسم الطالب	درجة العربى	درجة الانجليزى	درجة الكمبيوتر
أنس	17	16	13
تامر	14	18	16
رامي	15	19	14
سلمى	14	13	17
سمر	17	18	16
عمار	11	17	15
عمر	18	16	14
عمرو	19	18	19
محمد	19	15	17
ياسمين	20	17	16

Result of query execution نتيجة تنفيذ الاستعلام

- However, what is required is to create a query that shows the names of all students and the Arabic score only for each student.

- ولكن، المطلوب هو إنشاء استعلام يظهر فيه أسماء جميع الطلاب ودرجة العربى فقط لكل طالب.

Hide a field or fields from the query result :

- إخفاء حقل أو حقول من نتيجة الاستعلام :

1. From the "**View**" menu, choose "**Design View**", the query design window will appear.
   - من قائمة "**View**"، اختر "**Design View**" فتظهر نافذة تصميم الاستعلام.
2. click on the ✓ sign in the check box in the **Show row** in the design grid below the columns computer score and English score.
   - اضغط على علامة ✓ فى مربع الاختيار الموجود بالصف عرض **Show** فى شبكة التصميم أسفل عمودى درجة الكمبيوتر ودرجة الانجليزى.
3. The sign will be removed, which means hiding the field/fields in the query result.
   - فيتم إزالة العلامة، مما يعنى إخفاء الحقل/الحقول فى نتيجة الاستعلام.

Field:	اسم الطالب	درجة العربي	درجة الانجليزي	درجة الكمبيوتر
Table:	درجات الطلاب	درجات الطلاب	درجات الطلاب	درجات الطلاب
Total:	Group By	Group By	Group By	Group By
Sort:				
Show:	☑	☑	☐	☐
Criteria:				
or:				

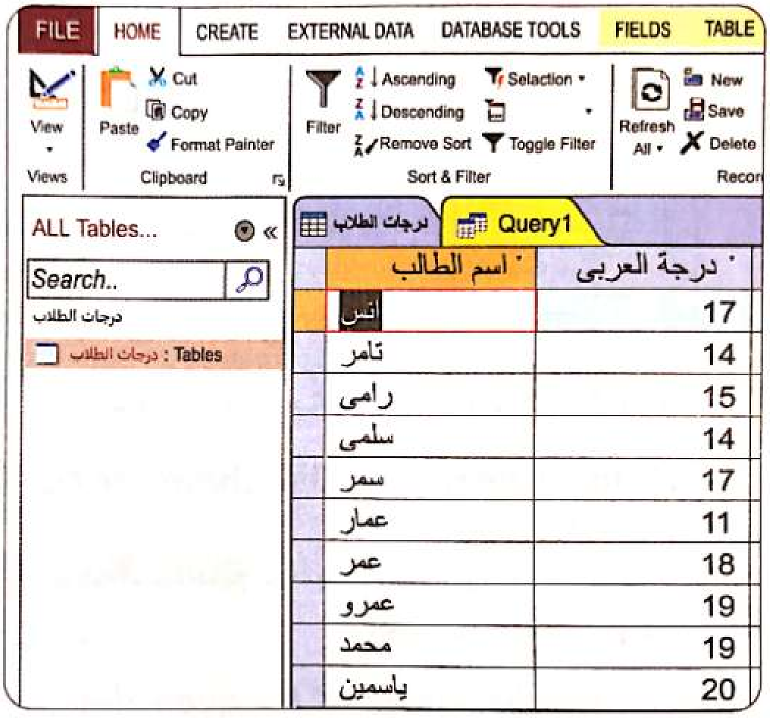
result	نتيجة	sign	علامة	remove	يحذف
menu	قائمة	score	درجة	hiding	إخفاء

4 When you remove the ✓ sign from the English score and computer score columns in the **Show row** in design grid, this means that these two fields will not appear when executing the query.

عند إزالة علامة ✓ من عمودى درجة الانجليزى ودرجة الكمبيوتر بالصف عرض **Show** فى شبكة التصميم، يعنى ذلك عدم ظهور هذين الحقلين عند تنفيذ الاستعلام.

5 Click on the "**Run**" icon in the "**Results**" group and the result will appear as follows.

اضغط على أيقونة "**Run**" فى المجموعة "**Results**" فتظهر النتيجة كالتالى :



Result of query execution

نتيجة تنفيذ الاستعلام

Pop Quiz

▶ **Put (✓) or (✗) for the following sentences :**

1. Queries are tools to obtain data from the database. ( )
2. When you add a field to the design grid with the drag and drop method for the field name, word automatically fills the table row. ( )
3. When you delete the sign(✓), this means hiding the field in query result. ( )
4. The query result appears in the form of a table showing some of students data. ( )

column عمود design grid شبكة تصميم

Establishing criteria or conditions within the query : وضع المعايير "Criteria" أو الشروط فى الاستعلام :

- The "**Criteria**" in a query helps you to identify specific items in an "**Access**" database.

  - تساعدك المعايير "**Criteria**" فى الاستعلام عن تحديد عناصر محددة فى قاعدة بيانات **Access** .

- If a record matches all the criteria you entered in the query grid, the record will appear in the query results.

  - فإذا تطابق السجل مع جميع المعايير التى أدخلتها فى شبكة الاستعلام، فسيظهر السجل فى نتائج الاستعلام.

How to add Criteria or Conditions in a Query: كيفية إضافة المعايير "Criteria" أو الشروط فى الاستعلام :

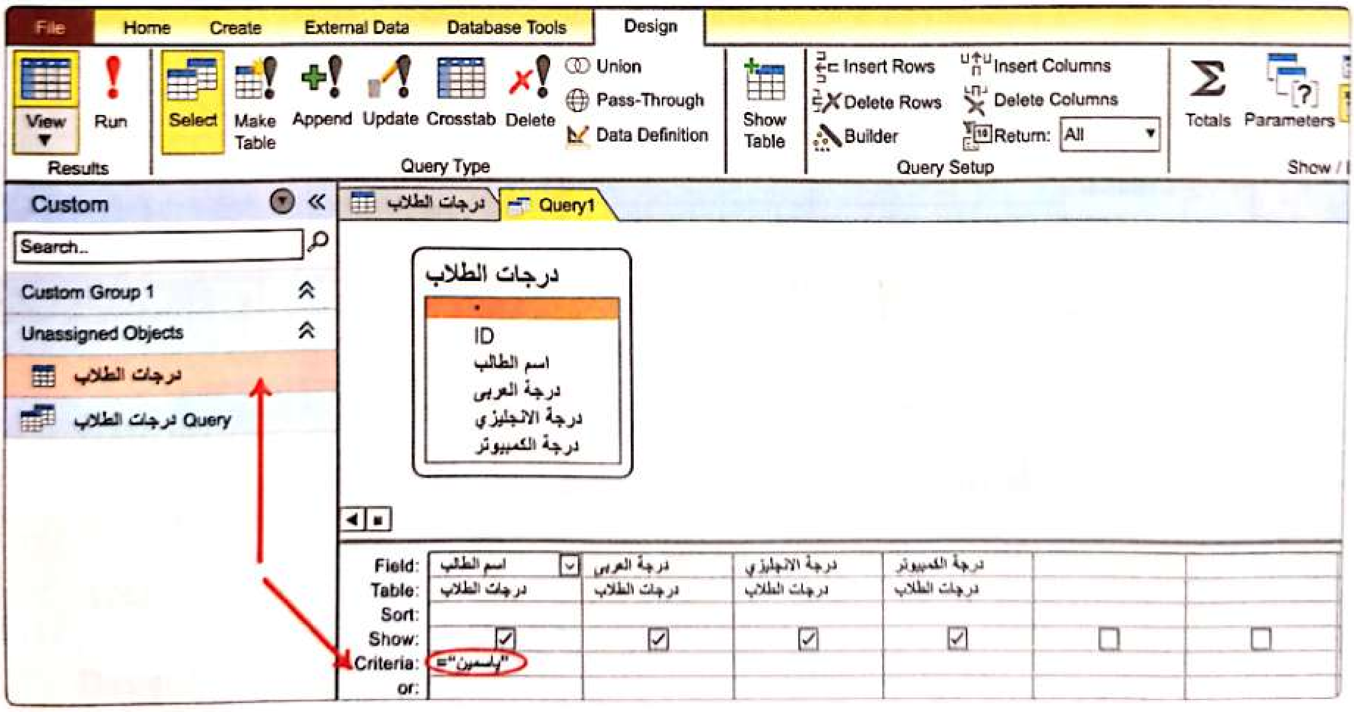
1. Open the query in "**Design View**" . - فتح الاستعلام فى عرض التصميم "**Design View**" .
2. Type the criterion or criteria in the **Criteria** row. - كتابة المعيار أو المعايير فى صف المعايير **Criteria** .

For Example :

"You are required to create a query to show only the data of the student Yasmin's record, steps : مطلوب إنشاء استعلام لإظهار بيانات سجل الطالبة "ياسمين" فقط الخطوات :

1. Type the search criterion "**Yasmin =**" in the "**Student Name**" column in the **Criteria** field.

   - أكتب معيار البحث "**ياسمين**" = فى عمود "**اسم الطالب**" فى الخانة **Criteria** .



2. We write the condition in the column of the field "**Student Name**", and in the row **Criteria**

نكتب الشرط فى عمود حقل اسم الطالب وفى صف **Criteria**.

3. Execute the query , the student record or records that meet the criterion or condition are displayed.

ننفذ الاستعلام ، يتم عرض السجل أو سجلات الطلاب والتى تحقق المعيار أو الشرط .

Student's name	Arabic grade	English grade	Computer grade
Yasmin	20	17	16

The result of executing the query is as shown in the figure

نتيجة تنفيذ الاستعلام كما بالشكل

Activity

Dear student With the help of your teacher and the cooperation with your partners , execute a query : to show the record of students who obtained grades greater than 18 in English in the database that you created.

Field:	Student's Name	Arabic grade	English grade	Computer grade
Table:	Student's grades	Student's grades	Student's grades	Student's grades
Sort:				
Show:	☑	☑	☑	☑
Criteria:			> 18	
or:				

NUM LOCK SQL

Student's name	Arabic grade	English grade	Computer grade
Ramy	15	19	14

The result of executing the query is as shown in the figure

نتيجة تنفيذ الاستعلام كما بالشكل

Stop here !



استمع إلى ملخص الدرس

نقاط هامة وعبارات استرشادية تمكنك من تلخيص وإتقان الدرس.

Lesson Summary

- Form is a graphical interface designed specifically to interact with data stored in the database.
  - النموذج هو عبارة عن واجهة رسومية مصممة خصيصًا للتعامل مع البيانات المخزنة في قاعدة البيانات.
- Form is a screen that displays specific information from the database and allows the user to enter, modify of delete this information in an organized and convenient way.
  - النموذج هو شاشة تعرض معلومات محددة من قاعدة البيانات وتتيح للمستخدم إدخال أو تعديل أو حذف هذه المعلومة بطريقة منظمة ومريحة.
- Queries are tools used to obtain data from the database according to "specific criteria or conditions "
  - الاستعلامات هى أدوات تستخدم للحصول على البيانات من قاعدة البيانات وفقًا لمعايير أو شروط محددة.
- Through the query, information can be obtained from the database based on the data stored in the database.
  - من خلال الاستعلام يمكن الحصول على معلومات من قاعدة البيانات المخزنة في قاعدة البيانات.
- Access provides many methods that allow you to create a query.
  - يوفر برنامج Access العديد من الطرق التى تتيح إنشاء الاستعلام.
- When using "Query Design" method, you can have greater control over the details of the query design.
  - عند استخدام طريقة عرض التصميم Query Design يمكنك التحكم بشكل اكبر في تفاصيل تصميم الاستعلام.

How to deal with the exam

كلمات و عبارات إسترشادية تساعدك على حل أسئلة الامتحان.

Guiding words	Exam items
Form wizard	A new form can be created under the name "Enter student Grades" using the Form Wizard.
First record	Click on "First record" icon to display the data of the first record.
Last record	Click on the "Last record" icon to display the data of the last record.
esign View	Design View is divided into two part: the upper part contains the data source table and the lower part is the query design grid.
n - icon	To execute the query on the Design tab, click on the "Run" icon.

يمكنك حل التدريب وتصويبه إلكترونيا

▸ If you got 🔴 you need to revise the lesson again.

ممتاز 🔵 جيد جدا 🟢 جيد 🟡 غير جيد 🔴

قم بتقييم نفسك بالعلامات الموضحة وإذا حصلت على 🔴 (غير جيد) قم بمراجعة الدرس مرة أخرى من الصفحة السابقة.

El-Moasser Exercises

1 Choose the correct answer from a, b, c or d.

1. .... are defined as a graphical interface designed specifically to interact with stored data.
   a. Forms b. Queries c. Images d. Numbers
2. The " .... " program can browse large data stored within a database.
   a. Word b. Access c. Paint d. Excel
3. You can use " .... " to obtain the data you want within a database.
   a. data processor b. scientific presentation program
   c. paint program d. queries
4. The " .... " option is used to identify specific items in queries.
   a. View b. Format c. Insert d. Criteria
5. You can create a new query from a data table in Access by selecting " .... ".
   a. Insert b. Create c. Open d. Delete

2 Complete the following sentences.

1. A new form is created from the current "Student Grades" table by ....
2. The form is used to .... data in the "Student Grades" table.
3. You can create a new query from the database using ....
4. One of the types of queries that can be created in databases is ....
5. Specific conditions or criteria can be applied to the query through ....
6. Fields can be added to the query through ....

3 Put (✓) or (×) for the following sentences.

1. You can only modify the data through the form. ( )
2. You can control the display of the form data through "Design View". ( )
3. You can't add new data to the form. ( )
4. You can create a new query using the "Query Design" method. ( )
5. You can have more control over the details of the query design through "Data View". ( )
6. You can add a field to the query design grid through "Delete". ( )

Student's Book Exercises

* Put (✓) or (×) for the following sentences.

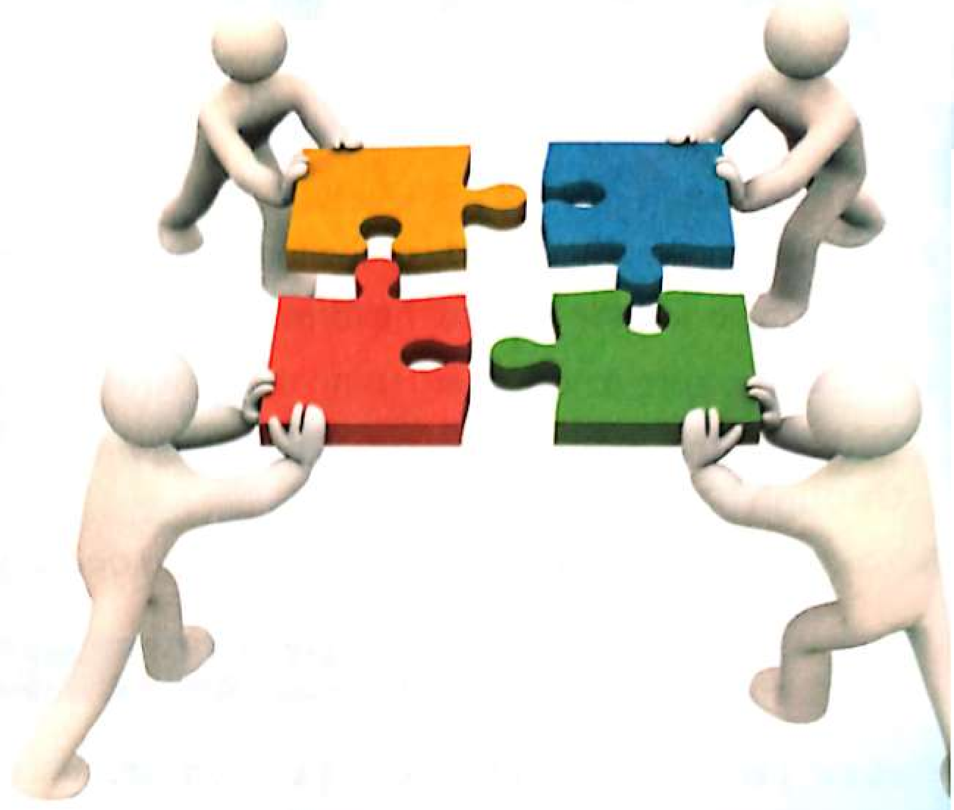
1. The form is a graphical interface designed to interact with data stored in the database. ( )
2. We use the form to enter, modify or delete this information in an organized and convenient way. ( )
3. A new form can be created under the name "Enter Student Grades" using the Form Wizard. ( )
4. All data entered through the form does not appear in the "Student Grades" table. ( )
5. Data can be entered through the spreadsheet or through the form. ( )
6. There are several other ways to create a form in an "Access" desktop database. ( )
7. We use the Query Design view to display the query results. ( )
8. The Query Design View window is divided into three parts. ( )
9. The Query Design window is divided into two parts, the upper part is the query design grid. ( )
10. The Query Design window is divided into two parts, the lower part is the data source table. ( )

قم بتلوين الدائرة باللون المناسب لمستواك. ◯



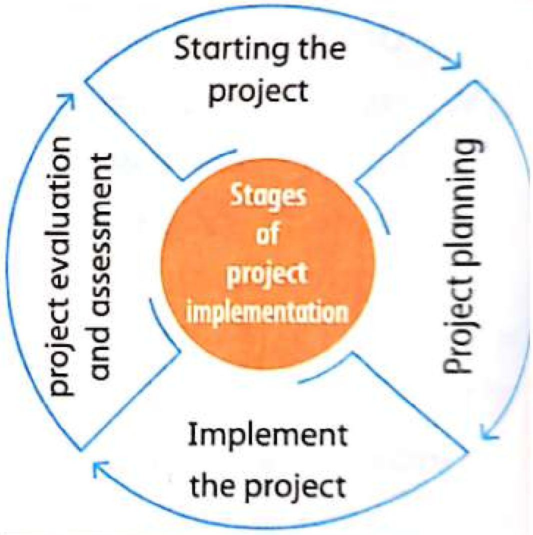
LESSON **10**

Digital Project



- **Stages of Project Implementation:** مراحل تنفيذ المشروع
  - The stages of any successful project are divided into main interconnected stages, each of which contributes to achieving the desired goals.

  ـ تنقسم مراحل أى مشروع ناجح إلى مراحل رئيسية مترابطة، كل منها يساهم فى تحقيق الأهداف المرجوة .



1 Stage One : Start the Project ١. بدء المشروع

* Determine a clear, achievable idea.
* Determine specific , measurable , and achievable goals.

- تحديد فكرة واضحة قابلة للتحقيق.
- تحديد أهداف محددة وقابلة للقياس وقابلة للتحقيق.

2 Stage Two : Plan the Project ٢. تخطيط المشروع

* Develop detailed plans and studies that include a work plan.

- وضع خطط ودراسة مفصلة تشمل خطة العمل .

* Develop a specific timetable for each stage of the project.

- وضع جدولًا زمنيًا محدد لكل مرحلة من مراحل المشروع .

* ...rmine project requirements.

- تحديد متطلبات المشروع .

3 Stage Three : Implement the project ٣. تنفيذ المشروع

* Form a work team.
– تشكيل فريق العمل.
* Assign roles and responsibilities to each individual.
– تعيين الأدوار والمسؤوليات لكل فرد.
* Start work, the actual implementation of the project begins according to the plans set .
– بدأ العمل ، تنطلق عملية التنفيذ الفعلية للمشروع وفقًا للخطط الموضوعة.

4 Stage Four : Access the project ٤. تقييم وتقويم المشروع

* **Follow-up and evaluation :** The progress of the project is continuously monitored, performance is evaluated compared to the plan, and the necessary adjustments are made to the course of work.
– المتابعة والتقييم : يتم المتابعة المستمرة للتقدم فى المشروع، وتقييم الأداء مقارنة بالمخطط، وإجراء التعديلات اللازمة على مسار العمل.
* **Problem management :** Potential problems that may face the project are identified and proactive steps are taken to mitigate or avoid them.
– إدارة المشكلات : يتم التعرف على المشكلات المحتملة التى قد تواجه المشروع واتخاذ خطوات استباقية للتخفيف من حدتها أو تجنبها.
* **Delivery and evaluation :** The final project outputs are delivered.
– التسليم والتقييم : يتم تسليم مخرجات المشروع النهائية.
* **Documenting lessons learned :** All lessons learned from the project implementation experience are documented , to benefit from them in future projects .
– توثيق الدروس المستفادة : يتم توثيق جميع الدروس المستفادة من تجربة تنفيذ المشروع، للاستفادة منها فى مشاريع مستقبلية.
* **Offering thanks and appreciation** to all those who contributed to the completion of the project .
– تقديم الشكر والتقدير لكل من ساهم فى إنجاز المشروع.

The steps of one of the projects خطوات تنفيذ أحد المشروعات

1 First : Project initiation stage ١. مرحلة بدء المشروع

* **Proposing ideas for projects :** Students propose ideas for some projects and the goal of each project.
– اقترح أفكار المشروعات : يقوم الطلاب باقتراح أفكار المشروعات لبعض المشروعات والهدف من كل مشروع.

Example

• The Great Nile River and the Rivers of the World.
– مشروع نهر النيل العظيم وأنهار العالم.



Objectives الأهداف

• **Study of natural phenomena :** The study of rivers contributes to understanding natural phenomena related to the water cycle, such as floods and droughts, and their impact on climate and the environment.
– دراسة الظواهر الطبيعية : تساهم دراسة الأنهار فى فهم الظواهر الطبيعية المرتبطة بدورة المياه، مثل : الفيضانات والجفاف، وتأثيرها على المناخ والبيئة.



- **History and heritage :** Rivers play an important role in the history and civilizations of peoples, and studying them helps to understand the development of civilizations and their interaction with the aquatic environment.

- التاريخ والتراث : تلعب الأنهار دورًا هامًا فى تاريخ وحضارات الشعوب، ودراستها تساعد على فهم تطور الحضارات وتفاعلها مع البيئة المائية.

- Studying the Nile and other rivers is a journey rich in knowledge and benefit, contributing to a better understanding of the natural world, sustainable management of water resources , economic and social development, and enhancing human well-being.

- تعد دراسة نهر النيل والأنهار الأخرى رحلة غنية بالمعرفة والفائدة، تساهم فى فهم العالم الطبيعى بشكل أفضل، وإدارة الموارد المائية بشكل مستدام، تحقيق التنمية الاقتصادية والاجتماعية، وتعزيز رفاهية الإنسان.

2 Second : Project planning stage ٢. مرحلة التخطيط للمشروع

*** Data and information you need to collect for the project :**

- البيانات والمعلومات التى تحتاج لتجميعها للمشروع.

- Find the five most famous rivers in the world.
- Design a table containing data for the five most famous rivers, including the name of the river -its length - the name of the source country - the name of the downstream country - the number of countries it passes through - the name of the continent in which the river is located.
- Find picture of this river.
- Find a video that shows information about the river.
- Use reliable websites and reliable sources.
- Use the Egyptian Knowledge Bank.
- Find more information about each of the five rivers.
- Find The length of the Nile River - the name of the source country - the name of the downstream country - the number of countries it passes through.
- Ask your social studies teacher to verify the data and information you and your colleagues have collected.

Tools, devices , and applications required to prepare and equip for the project.
الأدوات والأجهزة والتطبيقات المطلوب إعدادها وتجهيزها للمشروع .

Identify the computer and the required peripherals.	Prepare and equip the applications and programs used.	Determine the time period for the project.	Identify direct and indirect communication tools to exchange ideas and opinions and exchange data and information.	Identify reliable sources.

3 Third : Project implementation stage ٣. مرحلة تنفيذ المشروع

- Forming work groups
- Dividing tasks among colleagues
- Determining the tasks of each colleague
- Starting work to implement the project according to the plans set

4 Fourth : Project evaluation and assessment stage ٣. مرحلة تنفيذ وتقديم المشروع

1. Continuous follow-up by the teacher and the head of each group monitor the progress of the project.
2. Identify the problems facing the working group in implementing the project and find solutions for them by the students and with the help of the teacher .
3. Collect the tasks, and compile the project and present it to the group to express their opinion and amend it if necessary.
4. Present the project of each working group to all students.
5. Students choose the best project.
6. Offer thanks and appreciation to all who contributed to the completion of the project.



Some applications and digital tools you need to implement the project

- بعض التطبيقات والأدوات الرقمية التى تحتاجها لتنفيذ المشروع.

تطبيقات تحتاجها أثناء تنفيذ المشروع تطبيقات من **Google App**

Google Slides	Google Sheets	Google Docs
A cloud application to create a personation. تطبيق سحابى لإنشاء عرض تقديمى	A cloud application to create a spreadsheets. تطبيق سحابى لإنشاء جداول بيانات	A cloud application to create a text life. تطبيق سحابى لإنشاء ملف نصى

Note that :

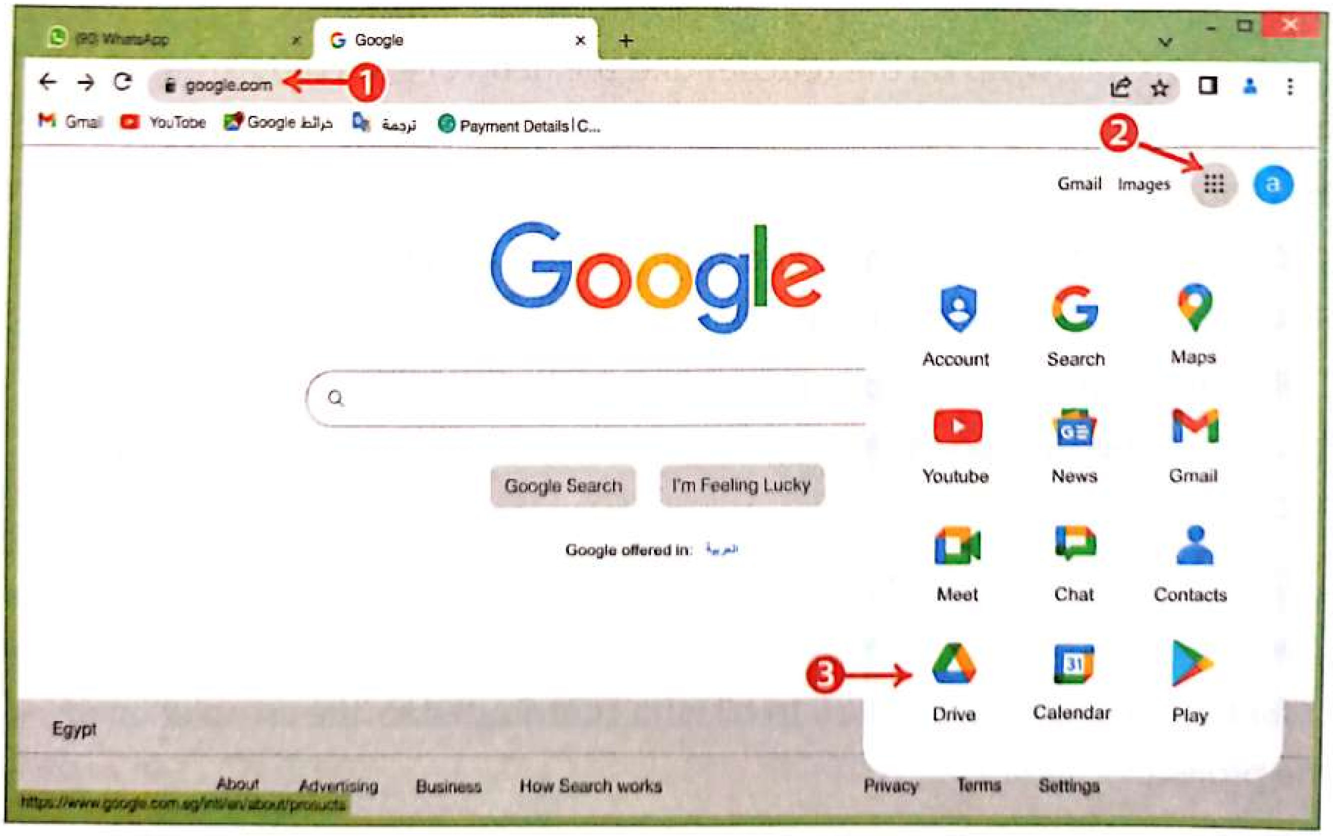
- To use these applications and various Google cloud computing services, you must register with your account that you previously created.

ولاستخدامات تلك التطبيقات وخدمات الحوسبة السحابية Google المختلفة، يجب التسجيل بحسابك والذى سبق وأنشأته.

Sign in using a Google Account to deal with Google Drive:

التسجيل والدخول عل حساب **Google account**

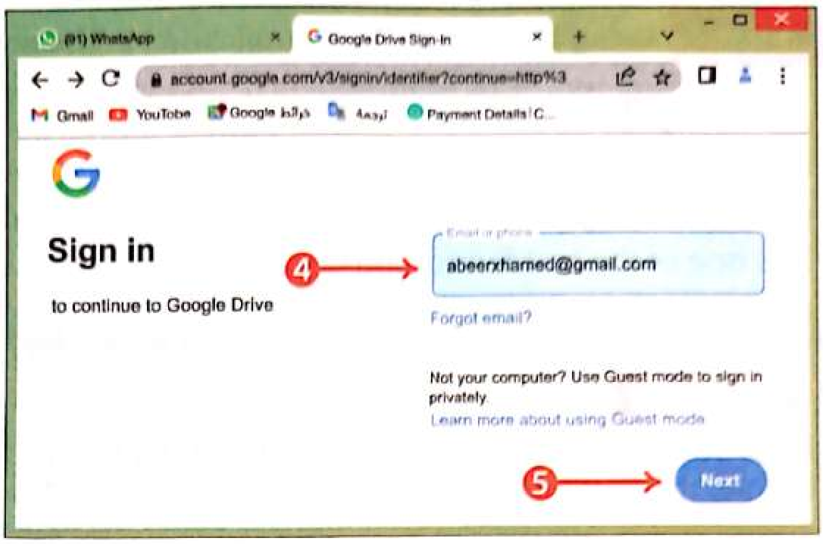
1. Type Google.com in the browser
2. Click the Google apps icon
3. Select the Drive icon



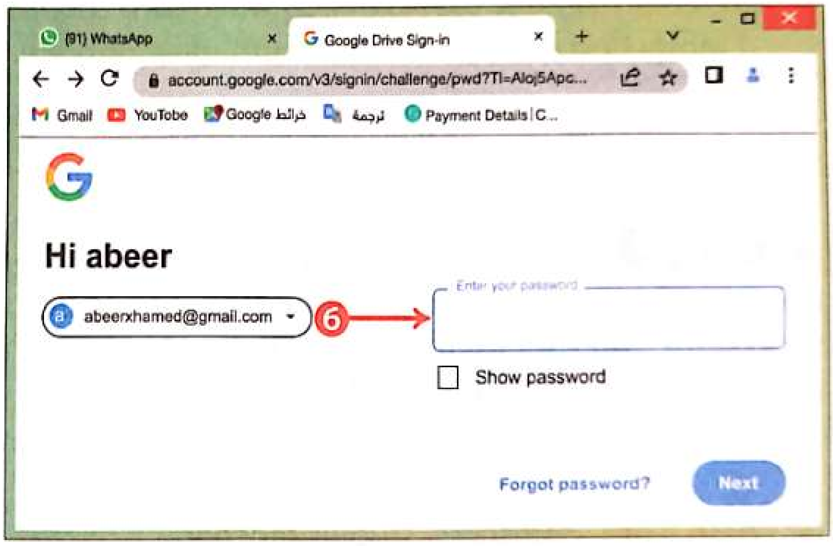
- The following screen appears :

4 Enter the username.

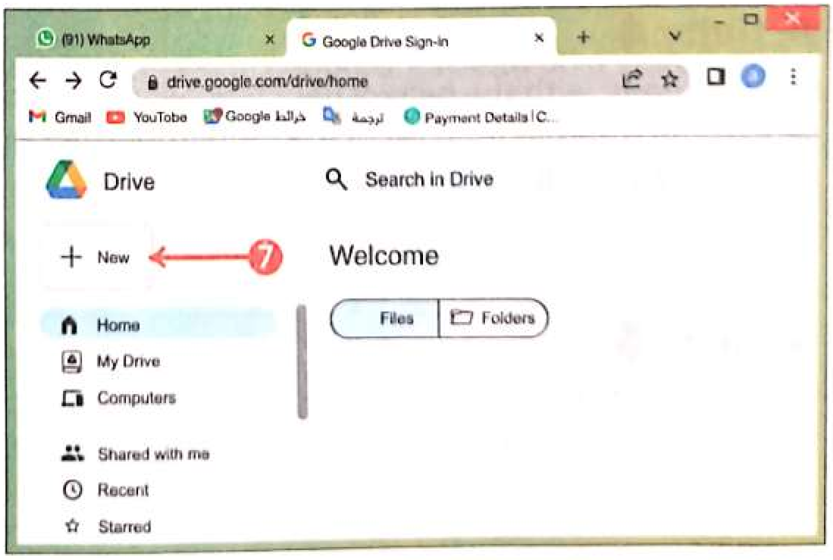
5 Click "Next" .



6 Enter the password then click "Next".



7 To present the screen in front of you.
Click "New".



First Using the Google Docs application in the project. توظيف تطبيق (Google Docs) في المشروع.

Activity 1

Dear student, with the help of your teacher and in cooperation with your partners, open the Google Docs application as one of the cloud computing service applications. It is one of the text formatting applications that allows you to write, format, save, print and share texts with others.

Activity 2

Dear student, with the help of your teacher and in cooperation with your partners, review the components of the main screen of the Docs application and write 4 of its components :

1. ....
2. ....
3. ....
4. ....

Activity 3

Dear student, with the help of your teacher and in cooperation with your partners, search the Internet for the importance of studying the world's rivers and write two paragraphs in the application docs :

....

....

Get help from your social studies teacher.

Activity 4

Dear student, with the help of your teacher and in cooperation with your partners, search the Internet for a list of the most important rivers in the world, including 5 rivers, and write them in **docs**.

....

....

Activity 5

Dear student, with the help of your teacher and in cooperation with your partners, format the paragraphs and lines for what you wrote in **docs**.

....

....

Activity 6

Dear student, with the help of your teacher and in cooperation with your partners, save the document as "**Rivers of the world**" in **docs**.

....

....

Second **Using the Google Sheets application in the project** ثانيًا: توظيف تطبيق (Google Sheets) في المشروع

Activity 7

Dear student, with the help of your teacher and in cooperation with your partners, open the **Sheets** application as one of the cloud computing services applications. It is one of the spreadsheet applications that allow you to create spreadsheets that contain literal values or Digital and formula equations and save, print and share them with others.

Activity 8

Dear student, with the help of your teacher and in cooperation with your partners, review the components of the main screen of the **Sheets** application and write 4 of its components :

1. ....
2. ....
3. ....
4. ....

Activity 9

Dear student, with the help of your teacher and in cooperation with your partners, search online for the longest rivers that you wrote in the Docs application and their geographical location.

The river	The river length	Location

Activity 10

Dear student, with the help of your teacher and in cooperation with your partners,
- Create a table with the river data you collected.
- Make a schematic diagram of the distribution of the lengths of those rivers in the Sheets application.

Third **Using the Google Slides application in the project** توظيف تطبيق (Google Slides) في المشروع

Activity 11

Dear student, with the help of your teacher and in cooperation with your partners, open the Slides application as one of the cloud computing services applications. It is one of the presentation applications that allows you to create slides that display textual content, images, video, a table, a schematic diagram or drawings to an audience in a hall, meeting, or online, and save, print, and share them with others.

Activity 12

Dear student, with the help of your teacher and in cooperation with your partners, review the components of the main screen of the Slides application and write 4 of it components :

1. .... 2. ....

3. .... 4. ....

Activity 13

Dear student, with the help of your teacher and in cooperation with your partners, prepare the following slides in the Slides application from the data you collected through searching the Internet and used in the Docs and Sheets applications.

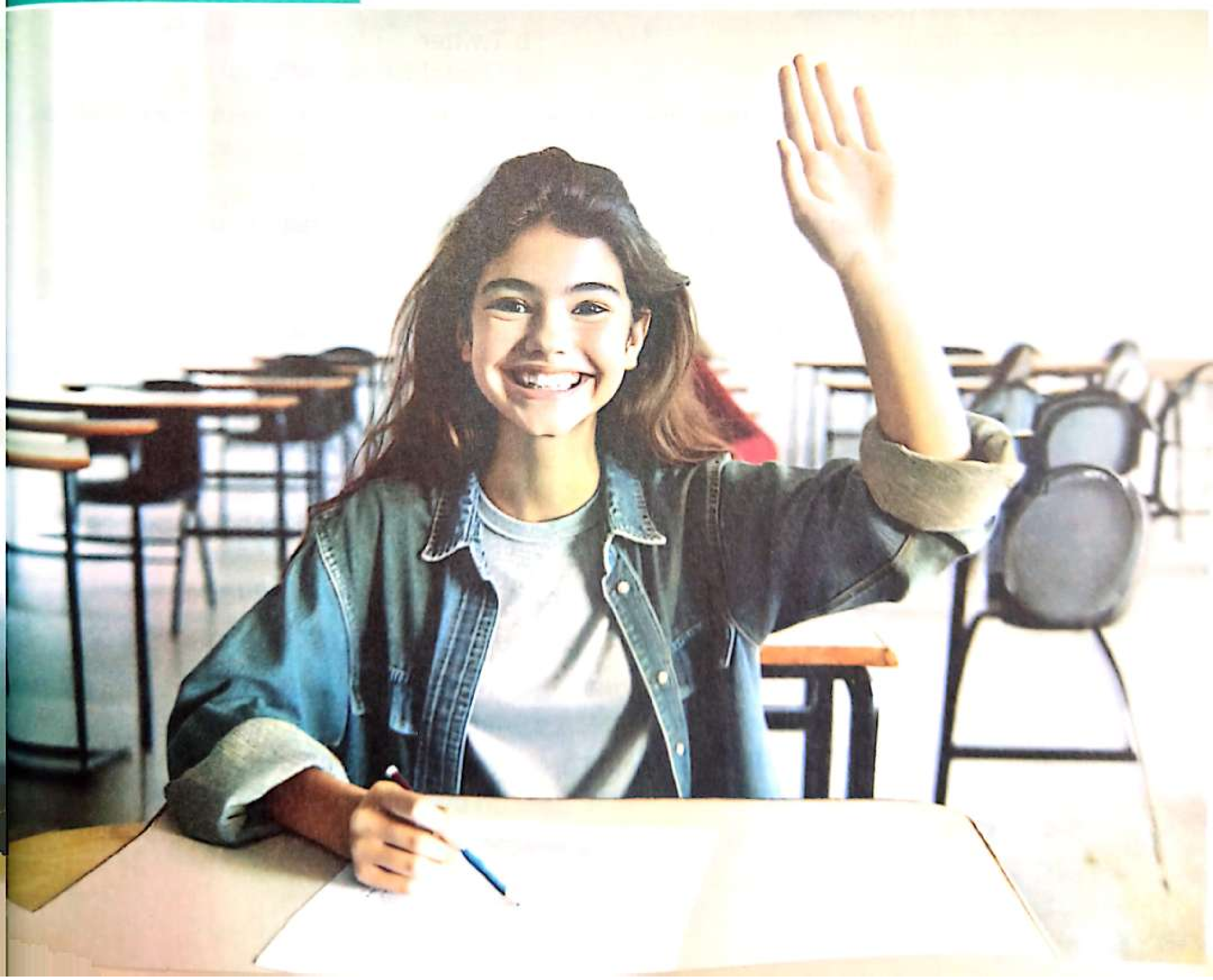
1. An introductory slide explaining the goal of the project.
2. Two slides for the most important global rivers with illustrative images.
3. A slide for distributing the lengths of the main rivers.

Part 2

El-Moasser Interactive Notebook

Contents

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3. A day is enough 154
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5. Answers of The Main Book 187





Monthly Assessments

التقييمات الشهرية

October Test

1 Choose the correct answer from a, b, c or d.

1. Electric cars used in Egypt recently are equipped with a place for ....
   a. charging b. fuel c. saving d. energy
2. Green technology is used to preserve ....
   a. printers b. environment c. sensors for objects d. fuel
3. .... is a governmental electronic portal that provides many services to citizens, such as bill payments.
   a. Facebook b. Twitter
   c. Knowledge Bank d. Digital Egypt platform
4. The .... is one of common axes between green technology and digital transformation.
   a. communication b. support for sustainability
   c. video calls d. digital products
5. .... are used to pay for products from a bank account instead of cash.
   a. Power stations b. Network devices
   c. Point of sale terminals d. WhatsApp

2 Put (✓) or (×) for the following sentences.

1. The computer hardware components are managed through a Word processing program. ( )
2. Smart TVs use operating systems such as Windows and Android TV. ( )
3. Green technology involves integrating digital technology into all aspects of work to enhance efficiency. ( )
4. The INSTAPAY electronic payment system allows sending and receiving money through a bank account only. ( )
5. Sensors are used to detect smoke from fires and regulate temperatures. ( )

3 Complete the following sentences.

1. .... helps to reduce environmental pollution due to its usage.
2. Solar energy technology relies on using .... and converting it into electrical energy.
3. .... is one of the benefits of linking green technology with digital transformation.
4. .... are network equipment that require an operating system to work.
5. Smartphones and tablets rely on operating systems such as .... from Apple company.

November Test

1 Choose the correct answer from a, b, c or d.

1. Removing unused programs saves disk .... and speeds up and eases the use of device.
   a. storage space b. control panel c. software d. folders
2. Modern operating systems include a list of .... for several accessory devices.
   a. drivers b. viruses
   c. songs d. malware
3. .... is a symbol that separates the User Name from the email server name (Domain Name) that is used.
   a. @ at sign b. * c. # d. F1
4. A .... is one of disadvantages of using email .
   a. speed b. diversity c. spam d. digital service
5. We should use services like .... to protect data against loss in case our devices are damage.
   a. chatting b. communication c. sharing d. cloud backup

2 Put (✓) or (×) for the following sentences.

1. Uninstalling a program means you're deleting all the program files from your device. ( )
2. To uninstall a program, use the control panel. ( )
3. An email is one of the direct communication tools around the world. ( )
4. Cloud computing is a digital service model provided online. ( )
5. Google Meet can be accessed on Android devices using WhatsApp. ( )

3 Complete the following sentences.

1. To access Google Meet services , you must have ....
2. .... is the most prominent cloud service provider .
3. An email address consists of ....
4. A Google account consists of .... and ....
5. It's difficult to use the .... program if you have a large amount of complex data.

Three days are enough

راجع وتمكن في 3 أيام

Day 1 Important Points

1 Green technology

- Electric vehicles are used to enhance energy efficiency within the transportation sector.
- Green technology is based on technological tools that help protect the environment.
- Green technology is used in various aspects of life, renewable energy (solar energy / wind power / hydro power), retionalization of energy consumption , waste recycling and water treatment.
- Green technology aids in optimizing water and electricity usage through various means like body sensors.

2 Digital Transformation

- Digital transformation is a national project that links all government agencies to each other through an information environment.
- Citizens can obtain a wide range of services through the internet and mobile applications through digital transformation.
- Digital transformation is vital for organizations for in enhancing efficiency and productivity, improving the quality of services and products offered to customers. In addition, it helps in innovation, creativity and competitiveness. It also minimizes energy and resource consumption and creates new employment opportunities.
- To get digital services or products, you should have an email.
- Smart energy grids, precision farming, smart buildings and smart transportation are examples of the integration of green technology and digital transformation applications.
- The integration of green technology with digital transformation helps to speed up the process of the digital transformation, create new employment opportunities and improve the quality of life.

3 Operating systems

- Operating systems are essential for managing and operating modern electronic and smart devices.
- Routers, switches, and other network equipment use operating systems for network management, settings, and security advantages.
- Gaming consoles feature exclusive operating systems tailored for gaming and multimedia purposes.
- Wearable devices, such as smartwatches and fitness trackers, use operating systems tailored to their distinct functions and needs.
- Modern cars and vehicles often have operating systems to control various functions such as infotainment, navigation and driver assistance technologies while driving and controlling the vehicle.

4 Installing programs

- If the operating system doesn't have the program you need, you can get the program from a storage unit or by downloading it online.
- Installation process depends on the form in which the program comes.
- Installation procedures differ from a program to another.
- The downloaded file may be compressed. You need to unzip it before accessing the file and selecting the SETUP. EXE icon.

5 Remove or uninstall a program

- Uninstalling a program means that you delete all the files of the program that you want to remove from your computer.
- Removing unused programs saves disk storage space and speeds up and eases the use of the device.

6 Setting up and configuring hardware

- The operating system installed the correct "Driver" for the attached device, so that you can use the new attached device with its full features.
- The Setup program automatically copies the driver files and the setup information file "inf." into a dedicated folder.

- Operating systems support many devices attached to computer such as printers, webcams, scanners in a way that varies depending on the type of operating system.
- Modern operating systems include a list of drivers for many peripheral devices.
- If the operating system finds a matching driver for the new peripheral, it installs the correct driver file(s) and makes other necessary adjustments to the system.
- To install a local printer, it is connected to the USB port, and the Plug and Play feature will automatically install it.

7 E-Mail

- An email is one of the cloud computing tools and one of the most popular means of communication in the world.
- It's used to share texts, files, images and other information.
- An email address consists of three main components "User name", The@symbol (at sign) and "Domain name".
- To establish a Google account, choose "Create my personal account".
- Choose the password you want, and confirm it again, making sure that it is difficult to guess.

8 Cloud computing

- It's called cloud storage service or computer storage. It is storing files and folders over the Internet.
- The benefits of cloud computing are.
  1. Ease of access
  2. Availability of the service
  3. Reducing material costs
  4. Sharing digital resources with others
- We use cloud computing applications in daily life. such as :
  1. Communication
  2. Computer storage
  3. Producing projects
  4. Education
  5. Entertainment
- Data processing and storage in cloud computing depends on :
  1. Data collection
  2. Data transfer
  3. Data processing
  4. Data storage
  5. Data management
  6. Data access

- The requirements to obtain cloud computing services are :
  1. A computer or mobile phone
  2. An internet browser or application
  3. An internet connection
  4. Creating an account
- The most famous cloud computing services providers are :
  1. Amazon web services
  2. Microsoft Azure
  3. Google Cloud Platform

9 Google Meet

- "Google Meet" is a video conferencing service developed by Google.
- You must have a Google account to access "Google Meet".
- You can start an instant meeting in "Google Meet" by going to the main page of the "Google Meet" application and click on the "New meeting" button.
- You can send the meeting link to the participants via one of the communication tools "email - WhatsApp).
- The Google Meet also enables you to create a meeting for a later time, and keep its link until the time you want to meet whomever you want to invite to attend.

10 Database Design

- Databases are a collection of data and information organized and linked to each other.
- Organization, efficiency, accuracy, security and sharing are the main characteristics of using databases.
- The amount of data is increasing and growing rapidly due to the rapid development of digital technologies such as :
  1. Artificial intelligence (AI)
  2. The Internet of Things (IoT)
- As data continues to increase, expand, and spread, new big data tools are emerging to help companies collect, process, and analyze data at the speed needed to get the most out of it.
- Excel and Word are programs used to create spreadsheet, but Excel is difficult to use ...en we have a large amount of complex data.
- ...oft Access is one of the applications used to create databases. It can build ...ex structure for data and manage in more efficiently.

11 Forms & queries

- Form is a graphical interface designed specifically to interact with data stored in the database.
- The Access program creates the form, and through the form the data for each student's record is displayed individually.
- Access provides many methods that allow you to create a query, using the "Query Design" view.
- Queries are tools used to obtain data from the database according to specific criteria or conditions.
- If a record matches all the criteria you entered in the query grid, the record will appear in the query results.

12 Digital project

- The stages of any successful project are divided into main interconnected stages which contributes to achieving the desired goals.
- To start a project, determine a clear, achievable idea.
- Collect data and information you need for the project.
- Prepare the tools, devices and applications required to prepare and equip for the project.
- Continuous follow - up by the teacher and the head of each group to monitor the progress of the project.

  1. Identify the problems facing
  2. Collect the tasks
  3. Present the project of each working group
  4. Students choose the best project

- The applications you need during the implementation of the project are :

  * Google App →
    - Google Docs
    - Google sheets
    - Google slides

- To use these applications and various Google Cloud Computing services, you must register with your account that you previously created.

Day 2 Important Definitions

Word	Definition
Green technology	- It is occasionally referred to as sustainable technology or clean technology that help to protect the environment. - It optimizes the use of its resources.
Green buildings	The design and construction of buildings using eco-friendly, energy-efficient materials while enhancing ventilation and insulation.
Smart transportation	Utilizing electric vehicles to improve energy efficiency within the transportation sector.
Sensors	Devices that detect the presence of objects and can trigger actions like turning the taps of water or electricity on & off.
Geothermal energy	Using the heat from the Earth's internal to generate electricity.
Bioenergy	Using organic materials like soybeans and corn for energy production.
Digital transformation	The combination of digital technology into all aspects of business to enhance workflow efficiency, lower costs, and innovate products and services.
Digital Egypt platform	It is a governmental digital platform offering various electronic services to citizens including bill payments. The application is accessible for download and use on mobile devices.
Meeza	It's an electronic payment cards offer convenience by providing easy, fast, and secure electronic payment methods for individuals.
INSTAPAY	It is an application for electronic payments licensed and approved by the Central Bank of Egypt, enabling the transfer and reception of funds via a bank account or digital wallet including bill payments.
Operating system	It is an interface between the user, hardware and software. It is responsible for managing the hardware components, running all software and helping the user accomplish their various tasks on the computer easily and smoothly.

Word	Definition
Servers	They use operating systems like : - Linux - Microsoft Windows Server that are used to manage network resources and deliver a rang of services.
Gaming Consoles	Gaming Consoles such as PlayStation, Xbox, and Nintendo Switch feature exclusive operating systems tailored for gaming and multimedia purposes.
Point of sale terminals	are electronic devices that enable customers to pay for purchased products by deducting the price from their bank account instead of using cash.
Desktop	The operating system startup screen (desktop) includes a set of symbols called Icons.
Icons	a set of symbols that appear arranged in a specific order over background.
Background	An image or color that the user selects.
Industrial control systems (ICS)	It is a broad term that includes many industrial control systems and devices used in industrial facilities.
USB port	A connector used for connecting devices to a computer, often enabling Plug-and-Play functionality.
Wizard program	Find the driver for the new peripheral.
Printer driver package	A software package that includes setup programs for printer installation.
Email	It is a digital communication system used to send and receive messages between users over the Internet. It is one of the cloud computing tools.
User name	It is the part that is located at the beginning of email address, and it is a unique and distinctive name that is not reserved by anyone else.
The @ symbol (at sign)	It is a symbol that separates the user name from the name of email service (domain name) used.

Word	Definition
Domain name	It is the name of the email server that hosts the email account and is a place to store your email messages.
Google account	It includes the email service and obtain other Google services, you must create a Goolge Account. - A Google Account consists of a user name and a password.
Cloud computing	It is a model for providing digital services over the Internet, such as : • cloud storage service • Software service • electronic resource sharing service
Social networking	enable us communicate with others and share content on social media platform such as Facebook, Twitter, and Instagram.
Messaging services	We use messaging applications such as WhatsApp and Telegram to communicate and share files and photos.
File storage services	such as Google Drive and One Drive to store, share, and access files at anytime and anywhere.
Data backup	It protects our data from loss in case of any damage happens to our devices.
Producing projects	We use cloud word processing programs such as Google Docs, Microsoft Word Online to create, edit and share documents with others.
Spreadsheets	We use cloud spreadsheet such as Google sheets and Microsoft Excel Online to organize and analyze data and create charts.
E-learning platforms	We use e-learning platforms to access educational materials and interact with teachers and students.
Collaboration tools	We use collaboration tools to work on projects and assignments with others such as Google Classrooms and Microsoft Teams.
Healthcare Services	It stores medical records.
Google Meet	It is a video conferencing service developed by Google that enables users to conduct group video calls, share screens, chat, collaborate in real time, and work together on joint projects among students.

Word	Definition
Databases	A collection of data and information organized and linked to each other. It is used to store and retrieve information easily and efficiently and managed digitally using dedicated programs and applications.
Big Data	- It refers to a very large and diverse sets of structured, unstructured and simi-structured data that continue to grow significantly over time. - It's also large and complex data in terms of size, growth rate and diversity that traditional data management systems cannot store, process and analyze them.
Data Table	- A data table is a basic element in building databases and is the only source of data within the database. - It consists of rows and columns, where each row represents a single record of data.
Microsoft Access	is one of the applications used to create databases. It builds a real database, where you can build a complex structure for data and manage it more efficiently.
Primary Key	- It is a field in a database table that is used to uniquely identify each record in that table. - The primary key value is never repeated within the same table.
A Form	- It is a graphical interface designed specifically to interact with data stored in the database. - It is a screen that displays specific information from the database and allows the user to enter, modify or delete this information in an organized and convenient way.
Queries	are tools used to obtain data from the database according to specific criteria or conditions.
Criteria	It helps you to identify specific items in an Access database.
Starting the project stage	Determine a clear, achievable idea and achievable goals.

Word	Definition
Project planning stage	- Develop detailed plans and studies that include a work plan. - Determine project requirements.
Implement the project stage	Form a work team, assign roles and responsibilities to each individual then begins the project according to the plans set.
Evaluation and assessment stage	- follow-up and evaluation and problem management then delivery and evaluation the find project outputs and documenting lessons learned and offering thanks and appreciation to all those who contributed to the completion of the project.

Day 3 Devices and tools that are used in computer and information technology

Resources conservation (water - electricity).

- Green technology aids in optimizing water and electricity usage through various means, including :

Body Sensors

water conservation:

- Which detect the presence of a hand under the tap, control the flow of water by turning the taps on /off.

Electricity conservation :

- It can optimize electricity usage in both residential and commercial settings by employing sensors to regulate lighting based on need.



Solar Energy Technology

Electricity conservation:

- relies on photovoltaic panels to convert solar energy → into electrical energy.
- operate automatically when required



Sensors usages : Sensors are used in numerous tasks, including :

Sensors uses

- detecting smoke from fires
- regulating temperatures
- operating the lights through various methods



"Digital Transformation"

The combination of digital technology into all aspects of business to

- enhance workflow efficiency
- lower costs
- innovate products and services

Tools of digital transformation

Tools

- Electronic payment methods
- Tools for managing workflows
- Collaborative and communicative tools
- E-learning resources
- Cloud computing technologies
- Artificial intelligence and machine learning technologies
- Cybersecurity solutions

First Tools for workflow management

The "Digital Egypt" Platform

* It is a government electronic portal that provides many electronic services to citizens, such as paying **electricity and water bills.**
* The application can be downloaded and used on mobile device.

مصر الرقمية
حيـاة أسهل لأهـلـها

Second Electronic payment methods such as

1 "Electronic payment cards "meeza"

2 INSTAPAY application for electronic payments
[Licensed and approved by the Central Bank of Egypt]

meeza ميزة

INSTAPAY

Third Collaboration and Communication Tools

Applications : ▶ ZOOM ▶ Google Meet

* It is a video conferencing application.
* It enables face-to- face communication with others.

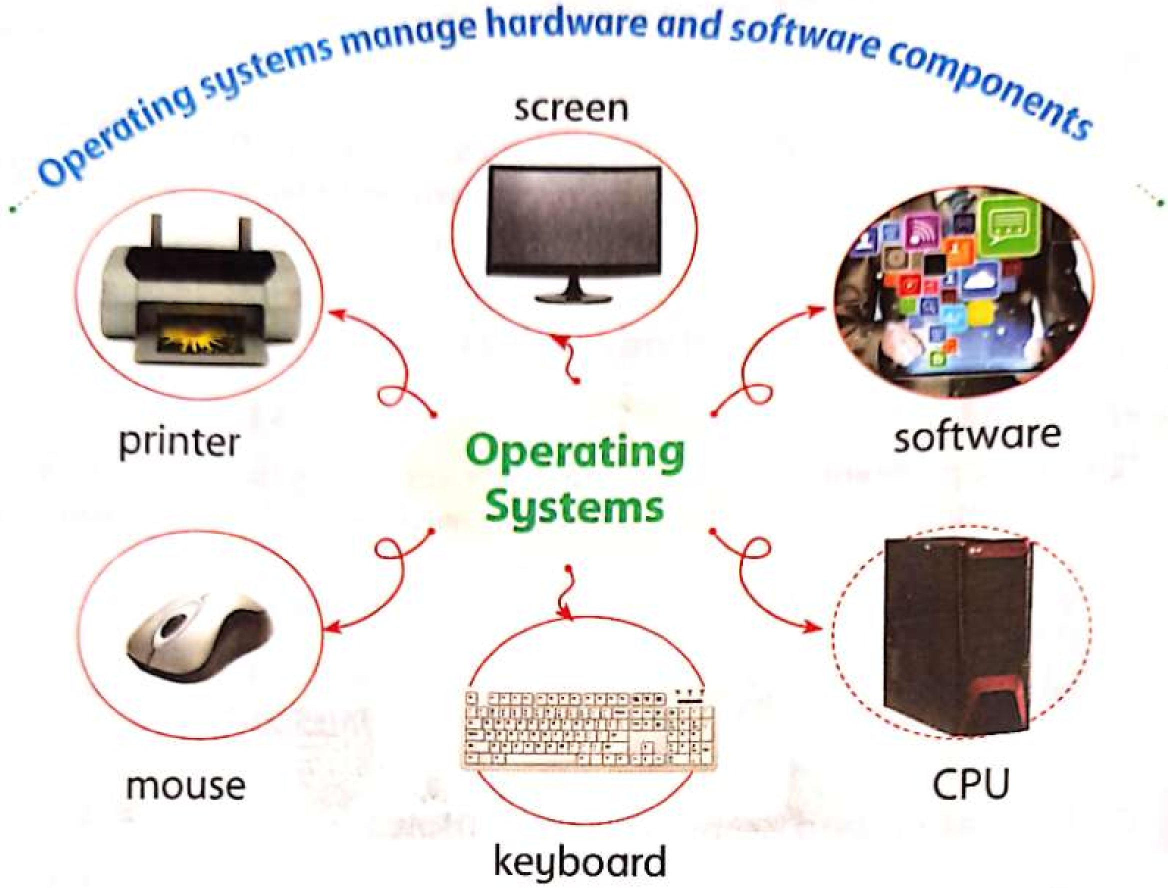
Google Meet

The most important common axes between green technology and digital transformation

1. Enhancing resource utilization efficiency
2. Reducing harmful emissions
3. Supporting sustainability

Examples of the integration of green technology and digital transformation applications

- Smart energy grids
- Precision farming
- Smart buildings
- Smart transportation
- Smart cities



The key functions of the operating system

The key functions of the operating system

- File system management
- Hardware management
- User interface
- Memory management
- Security and protection

Modern electronic devices, smart devices, and operating systems used in our daily lives :

* Operating systems are necessary for the operating and managing a variety of modern electronic and smart :

Such as

Personal computers (PCs)



Mobile Devices



Wearable Devices



Network Devices



Automotive Systems



Learn : Operating systems used in some smart devices



Linux



iOS



Windows



Tizen

There are various operating systems used in :

Automotive systems



ATMs



Factories



Embedded Systems

* Operating systems are used in embedded systems like :
- Automated Teller Machine (ATM).
- Point of Sale Terminal.





Bars contain

- icons that symbolize software installed on the operating system
- icons to adjust some system settings such as : date, time, sound settings and network



Industrial Control Systems (ICS)

* To control the performance of machines and industrial processes. Industrial control systems work on the following :

1. Control and monitor the progress of industrial processes
2. Provide a safe environment for health and operational safety
3. Industrial control systems are used in most industrial sectors

* **How you start the installation process depends on → the form in which the program comes:**

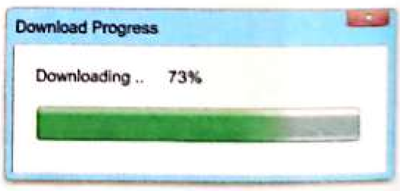
1 .

* If you purchased the program, the program comes on a CD or DVD → you use this CD to install the program.



2 .

* On the other hand , if you downloaded the program from the Internet , the program is in the form of a file and this file is used to install the program.



First Installing the program from a CD of DVD

1. Insert the software disc, the AutoPlay box will appear.
2. Click Run SETUP. EXE
3. Follow to the installation instructions provided by the software .

Second — Installing the program from an Internet-downloaded file

1. Use the "This PC" icon to access the downloaded file.
2. Double -clicking the file starts up the installer.

Third — Installing the program from a compressed file

1. Extract the compressed files.
2. Next, double-click the installation file.
3. Follow the installation instructions provided by the software.

Remove or uninstall a program :

* Uninstalling a program means that you delete all the files of the program that you want to remove from your computer.

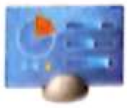
There are two methods to remove or uninstall the program

- The program does this itself → many programs come with their own removal or uninstallation command
- Control Panel → The operating system helps you uninstall the program

Steps for uninstalling a program on the device

1. Access the "Control Panel window" 
2. Clicking on "Uninstall a program " will prompt the window displaying installed programs to appear.
3. Click on the program you wish to uninstall.
4. Then select Uninstall.

Install a Non-Plug and Play Printer



1. Access the "Control Panel"
2. Select Hardware and Sound
3. Open Devices and Printers
4. Click on "Add a printer"
5. We press the printer that I desire is not listed"
6. Select Add a local printer or network printer with manual settings

* **To complete the setup process :**

- First you need to determine which port your printer is connected to, for most older printers that connect to a parallel port the correct choice is the **LPT1** port while modern printers use the **USB** port.

1. Click "Next" to choose the appropriate driver.
2. From the list of drivers available in the Driver Store you can choose the one that is compatible with your printer type.

Installation of HP Laser Jet 5200 Series PCi 5 Printer Driver :

- If you don't find the driver you need → Click " **Have Disk**"
- Browse your storage devices for the driver you need

If you don't have a driver to identify your printer.
If you suspect that a newer version is available.

Click Windows Update to update the list of printers

The last step in the printer setup process is :

to give the printer a name.

Advantages of using email

1. Speed
2. Cost
3. Ease
4. Diversity
5. Reliability
6. Digital services

Drawbacks of using email

1. Hacking
2. Spam
3. Fraud
4. Viruses
5. Privacy

Providers of Email Services

There are many free email providers available

Such as

- **Hotmail/Outlook**
- **Yahoo Email**
- **Gmail**

Step to create a Google Account:

1. Download the Google website **/https://www.google.com.eg**
2. Click **Sign in**
3. Choose **Create Account**
4. To establish a Google account, choose **"Create my personal account"**
5. Insert your **"First name"** and **"Last name"** then click the **"Next"** button.
6. Enter your **date of birth** and **gender**, then click **"Next".**
7. Type the username you want in the **"Username"** field and then click **"Next"** .
8. Choose the **password** you want, and confirm it again, making sure that it is difficult to guess.
9. Enter **an alternative email address** used to recover the account and you can skip this.
10. Check and confirm your email address.
11. To complete the steps to create your email , review the terms of service and click **"I agree"** if you accept them.

Gmail email interface

- The interface language can be modified by selecting the settings icon → then choosing "See all settings"
- From the "General" menu, select the Arabic language under "Gmail display language".
- When you choose the Arabic language and click the "Save Changes" button, the Gmail email window interface appears in Arabic.

Sign out of your Gmail account

- Click on your profile picture icon and then choose "Sign out".

How can you access "Google Meet"

- From your PC via the link https://meet.google.com

For Android devices by downloading the "Google Meet" application by using the Google Play Store.

Create a meeting from "Google Meet"

- To create a meeting from "Google Meet" there are several options through which you can hold a meeting.

First You can start an instant meeting in "Google Meet" by :

Going to the main page of the "Google Meet" application and follow these steps:

1. Click on the "New meeting" button
2. Click on Start an instant meeting.
3. Click on the copy icon to share the meeting link.
4. Send the meeting link to the participants via one of the communication tools (e-mail-WhatsApp).

Second Create a meeting for a later time :

1. Follow the same previous steps to create an instant meeting.
2. Click on "Create a meeting for a later time"
3. A small window will appear with a link to the session.
4. Copy the meeting link.
5. Send the link to the people you want to hold the meeting with.

Joining a meeting in "Google Meet"

- If you are invited to attend a meeting session using "Google Meet", using a link :
  1. Clicking on the link directly.
  2. Sometimes, when you click on the meeting link:
- It may take some time to join until the meeting organizer approves your request to join the meeting.
  3. You should not send the meeting link to someone else, and you must ask the meeting owner's permission.

During a "Google Meet" meeting

General rules to follow during the meeting

1. While one participant is speaking , the rest of the participants must listen and turn off the microphone.
2. Raising your hand in the session to ask to speak helps organize sessions, talk and intervene in an organized and smooth manner.
3. When you are allowed to speak, the microphone icon will open and you can speak.

Send messages in the session to participants:

While you are in a "Google Meet" session , you can communicate with the attendees by sending messages to the participants in the session by clicking on the "In call messages" icon at the bottom of the page.

Sharing the presentation with participants

1. You can share your entire screen with participant or a specific window at the bottom of the page.
2. Click on the **"Share screen"** icon now.
3. Click on one of the tabs (entire screen, window or tab).
4. Then , click on the **"Share"** button.

Stop sharing presentation:

In the **"Google Meet"** window, click **"Stop sharing".**

Advantages of using databases

- Organization
- Efficiency
- Accuracy
- Security
- Sharing

Uses of databases in

- Websites
- Data analysis
- Scientific research
- Business applications

Programs used to create a spreadsheet

In Word
- You can create simple table, but you can't get a record of all students whose names include letter "Y".
- is used to create a simple spreadsheet

In Excel
- You can arrange and sort students grades.
- You can perform simple calculations
- It's difficult to use if you have a large amount of complex data

Microsoft Access is used

When

1. You have a large amount of complex data
2. You need to create relations between data
3. You want to create custom applications to manage data
4. You need higher data security

Steps to create a Table in Access

A. Table Design

To write the names of the table fields and specify their data type

B. Datasheet View

To enter and display the table data

First Table Design

* **To choose the "Table Design" style, follow the following steps :**

1 Choose **"Create".**

2 Choose the **"Table Design".**

* **The Table Design window opens, and consists of :**

1 Field Name → To write the field name

2 Data Type → To choose the statement type.

3 Design View → Design display style.

Save the Table

1 Click the **"Save"** icon.

2 Type the table name.

Datasheet View

To enter and view the table data.

1 Choose **"View"**.

2 Choose **"Datasheet View"**, and the **Data View window** will appear.

3 Enter your data and your colleagues' data in the table.

4 To return to the design mode from **"View"**, select **"Design View"**.

Create a Form

* A **new form** can be created under the name **"Enter student Grades"** using the **Form Wizard**.

To Create a Form from the current table "Student Grades"

1 Click on the table name **"Student Grades"** in the **Navigation Pane** on the left of the screen.

2 The data for **"Student Grades"** table will appear on the right of the screen.

3 Choose the **Create** tab.

4 Click **Form**.

* **The Access program** creates the Form, and through it the data for each student's record is displayed individually.

To Create "Layout View"

1 **"Layout View"** is where the data of the first record is displayed.

2 Click on the **"Next record"** icon to → display the data of the next record.

3 Click on the **"Last record"** icon to → display the data of the last record.

4 Click on the **"First record"** icon to → display the data of the first record.

Steps to create a new query using the Query Design method

1. Choose the **Create** tab.
2. Click on **Query Design**. A screen will appear.
3. Select the data source table to be used, which is "**Students Grades**".
4. Click **Add**, then **Close**. A "**Design View**" window will appear.

The Design View window is divided into two parts
- The upper part — Contains the data source table
- The lower part — is the query design grid

Add a field to the design grid

1. Use the **drag and drop** method for the field name.
2. Drag the field from the data source table in the upper part of the "**Query Design**" window to the design grid to the "**Field**" field row in the lower part of the "**Query Design**" window.
3. When you add a field by **drag and drop**, Access automatically fills the **"Table row"** in the design grid with the name of the table used" "**Student Grades**", to show the data source of this field.

Execute the query

1. On the **Design** tab.
2. Click on the **Run** icon in the **Results** group.

* **The query result** appears in the form of a table, showing all student data.

Hide a field or fields from the query result :

1. To hide one or more fields from the query result,
2. From the **"View"** menu, choose **"Design View"**.
3. The query design window will appear.
4. Click on the ✓ sign in check box in the **Show row** in the design grid below the columns Computer score and English score.
5. The sign will be removed, which means hiding the field/fields in the query result.
6. Click on the **Run** icon in the **Results** group and the result will appear.

How to add Criteria or Conditions in a Query :

To add Criteria to a query, you must :

1. Open the query in **Design View**.
2. Type the criterion or criteria in the **Criteria** row.
3. Type the search criterion"**Yasmin=**" in the "**Student Name**" column in the **Criteria** field.

Stages of Project Implementation

1. Starting the project
2. Project Planning
3. Implement the project
4. Project evaluation and assessment

Tools, devices, and applications required to prepare and equip for the project

- Identify the computer and the required peripherals
- Prepare and equip the applications and programs used
- Determine the time period for the project
- Identify direct and indirect communication tools
- Identify reliable sources

Some applications and digital tools needed to implement the project

- **Google Slides**
- **Google Sheets**
- **Google Docs**

Sign in using a Google Account to deal with Google Drive :

1. Type **Google.com** in the browser.
2. Click the **Google apps** icon.

Select the **Drive** icon.

ıter the **username**.

ıick "**Next**".

-ıter the **password** then click **Next**.

registration has been completed using your Google account.

A day is enough

راجع وتمكن في يوم واحد

Lesson 1 Green Technology

1 Choose the correct answer from a, b, c or d.

1. Egypt has recently used electric vehicles powered by ....
   a. gas b. fuel c. wind-power d. batteries
2. Green technology is sometimes referred to as .... technology.
   a. sustainable b. clean c. both a&b d. digital
3. .... are used to convert sunlight into electricity.
   a. Solar panels b. Smart transportation
   c. Hydropower d. Wind
4. We use .... to enhance energy efficiency within the transportation sector.
   a. smart transportation b. turbines
   c. solar panels d. organic materials
5. .... are used to regulate temperatures and operate lights in different ways.
   a. Sensors b. Solar energy c. Recycling d. Water treatmen

Answer		Explanation
(1)	batteries	Egypt has used electric vehicles powered by batteries as an alternative to fuel powered cars to protect the environment and rationalize the use of its resources.
(2)	both a&b	Green technology is referred to as sustainable technology or clean technology, as green technology is based on technological tools that help protect the environment.
(3)	Solar panels	Green technology has used solar energy to generate electricity from sunlight through solar panels.
(4)	Smart transportation	Smart transportation is using electric vehicles to improve energy efficiency in the transportation sector.
(5)	Sensors	Sensors are used in numerous tasks, including regulating temperatures, operating the lights various methods and detecting smoke from fires.

2 Put (✓) or (×) for the following sentences.

1. Wind turbines are used to generate electricity from air movement. (✓)
2. Bioenergy involves using organic materials like soybeans and corn to produce energy. (✓)
3. Industrial buildings are designed and constructed using environmentally friendly materials. (×)
4. 📖 The idea of sensors in water taps depends only on stopping water automatically. (×)
5. Organic waste is transformed into nutrient-rich compost to improve soil fertility. (✓)

Answer		Explanation
(1)	✓	Green technology uses wind energy to generate electricity from air movement through wind turbines.
(2)	✓	Green technology uses bioenergy through the use of organic materials like soybeans and corn to generate electricity.
(3)	×	Green technology is used for the rationalization of energy consumption through using green buildings because they are designed using environmentally friendly materials that save energy, improve ventilation and enhance insulation.
(4)	×	The concept of body sensors on turning water or electricity turn on/off automatically due to the presence of an object under a tap or lamp.
(5)	✓	Green technology uses waste recycling, such as transforming organic waste into nutrient-rich compost to improve soil fertility.

3 Complete the following sentences.

1. Vehicle emissions has raised carbon dioxide percentage in the atmosphere and intensifying global warming and resulting in ....
2. The idea of green technology is based on .... that help protect the environment.
3. .... are used to generate electricity from the movement of water.
4. Green technology is used for rationalization of energy consumption by using energy ....
5. Smart efficient irrigation systems like .... are used for water treatment.

Answer		Explanation
(1)	environmental pollution	The impact of vehicle emissions has raised the percentage of carbon dioxide in the atmosphere. Global warming and resulting in environmental pollution.
(2)	technological tools	Green technology is based on technological tools that help protect the environment and rationalize the use of its resources.
(3)	Dams	Green technology uses hydropower from dams to generate electricity from water movement.
(4)	electrical appliances	Green technology is used in rationalizing energy consumption by using energy - saving electrical appliances and high-efficiency computers.
(5)	drip irrigation	Green technology is used for water treatment through using smart efficient irrigation systems like drip irrigation.

Lesson 2 Digital transformation and its importance in our daily lives

1 Choose the correct answer from a, b, c or d.

1. .... is the combination of digital technology into all aspects of business to enhance workflow efficiency.
   a. Green technology
   b. Performance tasks
   c. Digital transformation
   d. Industrial

2. Digital transformation is essential for institutions and companies following except ....
   a. enhance efficiency and productivity
   b. creating new employment opportunities
   c. wasting energy
   d. enhance the quality of services

3. Digital transformation is a national project that moves Egypt to deal through a/an .... environment that links all government agencies to each other.
   a. information
   b. technical
   c. industrial
   d. vegetative

4. You can use electronic payment applications through the .... application.
   a. INSTAPAY
   b. Google Meet
   c. WhatsApp
   d. Email

5. .... are video calls and online conferencing applications.

a. Google Meet b. Word c. Zoom d. Both a & c

Answer		Explanation
(1)	Digital transformation	The combination of digital technology into all aspects of businesses to enhance workflow efficiency and innovate products and services.
(2)	wasting energy of	Digital transformation is crucial for institutions and companies for various reasons including increasing efficiency and production, raising the level of services and products provided to customers, increasing sales and revenues , innovation and creativity, maintaining competitiveness , improving decision - making , reducing the use of energy and resources and creating new job opportunities.
(3)	information	Digital transformation is a national project that moves Egypt to deal through an information environment that links all government agencies to each other .
(4)	INSTAPAY	INSTAPAY is an electronic payment application . It enables the sending and receiving and money through a bank account or electronic wallet and provides many services such as paying bills.
(5)	Both a & c	Zoom and Google Meet are collaboration and communication tools. They are video conferencing applications that enables face-to-face communication with others.

2 Put (✓) or (×) for the following sentences.

1. Digital transformation provides various services and products to citizens in an easier and faster way. (✓)
2. Digital Egypt Platform is a type of electronic payment method that is licensed and approved by the Central Bank of Egypt. (×)
3. Enhancing the efficiency of resource use is a common axe between green technology and digital transformation. (✓)

n order to access any digital services or products , an email address is required. (✓)

5. INSTAPAY electronic payment system serves as a government electronic gateway offering a variety of online services. (×)

Answer		Explanation
(1)	✓	Digital transformation enables citizens to access all their services thought the internet and mobile applications, so that various services and products are provided to citizens in an easier and faster way.
(2)	×	INSTAPAY is an electronic payment method which licensed and approved by the Central Bank of Egypt.
(3)	✓	Enhancing the efficiency of resource use , reducing harmful emissions and supporting sustainability are common axes between green technology and digital transformation.
(4)	✓	To obtain any of the services or digital products , you must have an email.
(5)	×	The "Digital Egypt" platform is a government electronic portal that provides many electronic services to citizens, such as paying electricity and water bills and the application can be downloaded and used on mobile device.

3 Complete the following sentences.

1. The tools of digital transformation include .... , ... and ....
2. Digital transformation can assist you in improving decision marking by providing .... and ....
3. Digital transformation allows citizens to access all their services through .... and ....
4. Instapay allows for sending and receiving money via .... and ....
5. .... and .... are examples of the integration of green technology and digital transformation applications.

	Answer	Explanation
(1)	collaborative and communicative tools, e-learning resources and cloud computing technologies	Digital transformation tools are such as, tools for managing workflows, electronic payment methods, collaborative and communicative tools, e-learning resources, artificial intelligence and machine learning technologies, cloud computing technologies, and cybersecurity solutions.
(2)	data, information-analysis in a timely manner	Digital transformation can assist you in improving decision - making by providing data, information and analysis in a timely manner.
(3)	The internet and mobile applications	Digital transformation allows citizens to access all their services through the internet and mobile applications , so that various services and products are provided to citizens in an easier and faster way.
(4)	a bank account and electronic wallet	Instapay allows for sending and receiving money via a bank account or electronic wallet and provides many services such as paying bills.
(5)	Smart buildings and smart energy grids	Smart buildings , smart energy grids and precision farming are examples of the integration of green technology and digital transformation applications.

Lesson 3 Operating Systems

1 Choose the correct answer from a, b, c or d.

1. .... is responsible for managing hardware components and running all other software.
   a. Antivirus b. Operating system c. Word Processing d. Painter
2. The operating system runs all software and accomplishes tasks in a/an .... way.
   a. difficult b. easy c. slow d. complex
3. Personal computers (PCs) use operating systems such as ....
   a. Microsoft Windows b. macOS c. both a & b d. Xbox
4. Smartphones rely on the iOS operating system from ....
   a. Google b. Apple c. Linux d. macOS

5. .... use operating systems like Linux and Microsoft Windows Server.

a. Game consoles b. Servers c. Mobile devices d. Google

Answer		Explanation
(1)	Operating system	The operating system is responsible for managing the hardware components, running all software and helping the user accomplish their various tasks on the computer easily and smoothly.
(2)	easy	The operating system is responsible for running all software and helping the user accomplish their tasks easily and smoothly.
(3)	both a & b	Desktop and laptop computers use operating systems like Microsoft Windows, macOS, and different distributions of Linux.
(4)	Apple	Smartphones and tablets rely on operating systems like Apple's iOS and Google's Android operating system.
(5)	Servers	Servers use operating systems like Linux operating system with its diverse distributions, Microsoft Windows Server operating system an specialized server operating systems are used to manage network resources and deliver a range of services.

2 Put (✓) or (×) for the following sentences.

1. Smart TVs operate on various operating systems such as Android TV, Tizen, and webOS. (✓

2. Gaming consoles like Xbox feature exclusive operating systems tailored for gaming applications. (✓

3. Using wearable devices like smartwatches and fitness trackers doesn't require an operating system. (×

4. Routers and switches use operating systems for network management. (✓

5. Modern cars and vehicles have embedded systems. (×

Answer		Explanation
(1)	✓	Smart TVs operate on operating systems like Android TV, Tizen, webOS and others to offer smart advantages such as streaming services, applications, and internet connectivity.
(2)	✓	Gaming consoles like the Nintendo Switch, Xbox, and PlayStation feature exclusive operating systems tailored for gaming applications and multimedia purposes.
(3)	×	Using wearable devices like smartwatches and fitness trackers require operating systems tailored to their distinct functions and needs.
(4)	✓	Routers, Switches, and other network equipment use operating systems to manage the network, settings, and security advantages of of the network.
(5)	×	Modern Cars and vehicles use automotive systems.

3 Complete the following sentences.

1. .... are electronic devices that enable customers to pay for products from their bank accounts instead of using cash.
2. .... control and monitor the progress of industrial processes and provide a safe environment for health and operational safety.
3. .... includes a set of symbols called Icons.
4. The background is .... or .... that the user selects.
5. .... contain icons that symbolize software installed on the operating system.

Answer		Explanation
(1)	Point of sale terminals (POS)	Point of sale terminals are electronic devices that enable customers to pay for purchased products by deducting the price from their bank account instead of using cash.
(2)	Industrial control systems (ICS)	Industrial control systems control and monitor the progress of industrial process, provide a safe environment for health and operational safety, and are used in most industrial sectors such as energy....
(3)	Desktop	The operating system startup screen (desktop) includes a set of symbols called Icons.
(4)	image or color	Background is an image or color that the user selects.
(5)	Bars	Bars contain icons that symbolize software installed on the operating system and other icons to adjust some system settings such as date, time, sound settings and network.

Lesson 4 Installation and removal of software and digital peripherals

1 Choose the correct answer from a, b, c or d.

1. When you download a program from the Internet, the program is in the form of a ....
   a. digital platform b. file c. images d. spreadsheet
2. If you download a compressed file, you must first .... the file to interact with
   a. Extract (unzip) b. install c. download d. save
3. Uninstalling a program means you .... all the files associated with the program to be removed.
   a. compress b. save c. delete d. install
4. Removing unused programs saves disk .... and speeds up and eases the use of the device.
   a. storage space b. programs c. control panel d. files
5. When the operating system automatically detects a new attached device, it ....
   a. deletes the appropriate driver for the attached device
   b. installs the appropriate device driver for the attached device
   c. shuts down the computer
   d. restarts the computer

Answer		Explanation
(1)	file	If you downloaded the program from the Internet, the program is in the form of a file and this file is used to install the program, but if the program comes on a CD or DVD, we use this CD to install the program.
(2)	Extract (unzip)	The download file may be compressed, so you need to unzip it before accessing the file and selecting the SETUP. EXE icon.
(3)	delete	Uninstalling a program means that you delete all the files of the program that you want to remove from your computer.
(4)	storage space	Removing unused programs saves disk storage space and speeds up and eases the use of the device.
(5)	installs the appropriate device driver for the attached device	When the operating system automatically detects a new attached device, it installs the appropriate device driver for the attached device.

2 Put (✓) or (×) for the following sentences.

1. The Setup program automatically deletes device driver files. (×)
2. Many programs come with their own removal or uninstallation command. (✓)
3. When you connect a new peripheral device with the Plug and Play feature, the operating system shuts down the computer. (×)
4. Operating systems don't support devices connected to the computer. (×)
5. To install a local printer that supports Plug and Play, connect it to a USB port, and the Plug and Play feature will automatically initiate the installation. (✓)

Answer		Explanation
(1)	×	The setup program automatically copies the driver files and the setup information file ".inf" into a dedicated folder.
(2)	✓	The program itself removes or uninstalls programs because many programs come with a dedicated removal or uninstallation command.
(3)	×	When you connect a new peripheral device with the Plug and Play feature, the operating system automatically installs the correct and appropriate device driver for the new peripheral device.
(4)	×	Operating systems support many peripheral connected to the computer, such as printers and webcams.
(5)	✓	To install a local printer (i.e., directly connected to the computer) that supports Plug and Play, connect it to a USB port, and the Plug and Play feature will automatically install it.

3 Complete the following sentences.

1. You can use .... to assist the operating system in uninstalling a program
2. Modern printers use the .... port, while older ones use the .... port.
3. The final step in printer setup is ....
4. Modern operating systems include a list of .... for a variety of peripheral devices.
5. If the printer driver package includes a setup program, run the setup program and through it, you can identify the printer within ....

Answer		Explanation
(1)	the control panel	Through the Control Panel, the operating system helps you remove or uninstall the program.
(2)	USB - LPT1	Most older printers that connect to a parallel port the correct choice is the LPT1 port, while modern printers use the USB port.
(3)	giving the printer a name	The last step in the printer setup process is to give the printer a name. The default name usually includes the manufacturer and model of the printer; you can change this value to a more descriptive name now or later.
(4)	device drivers	Modern operating systems include a list of device drivers for a variety of peripheral devices.
(5)	the operating system	If the printer driver package includes a setup program, run the setup program and through it you can identify the printer within the operating system.

Lesson 5 Email

1 Choose the correct answer from a, b, c or d.

1. "................" is a digital communication system used to send and receive messages between users over the Internet.
   a. Text messages b. Email c. User name d. Spam messag
2. .... is a unique and distinctive name that is not reserved by anyone else and located at the beginning of the email address.
   a. User name b. Domain name c. Virus d. Gmail
3. The domain name is the name of the .... that store your email messages.
   a. User name b. Gmail c. email server d. @ symbol
4. Through email, you can ....
   a. delete files b. use cloud computing applications
   c. install programs d. print files
5. Email offers a variety of .... products online.
   a. manual b. digital c. written d. high-cost

Answer		Explanation
(1)	Email	Email is a digital communication system used to send and receive messages between users over the Internet.
(2)	User name	User name is the part that is located at the beginning of the email address, and its is a name that the user chooses and specifies because it is a unique and distinctive name that is not reserved by anyone else.
(3)	email server	Domain name is the name of the email server that hosts the email account and is a place to store your email messages.
(4)	use cloud computing applications	Email is one of the cloud computing tools through it we can use cloud computing applications.
(5)	digital	Registration is done using email on the websites of service providers and digital products online.

2 Put (✓) or (×) for the following sentences.

1. Email is one of the most common direct communication methods in the world. (×)
2. The # symbol separates the username from the email server name. (×)
3. Drawbacks of using email include hacking, spam messages, and fraud. (✓)
4. Google provides various online services, including email services. (✓)
5. To access Google services, a Google account must be created. (✓)

Answer		Explanation
(1)	×	Email is one of the most common communication methods in the world and one of the indirect communication tools.
(2)	×	The @ symbol separates the username from the email server name (domain name) used.
(3)	✓	Drawbacks of using email include hacking, spam messages, fraud, viruses, and privacy issues, as email messages are not always completely secure.
(4)	✓	Google provides various online services, including email services.
(5)	✓	To access Google services, a Google Account must be created. It consists of a username and a password.

3 Complete the following sentences.

1. There are many free email providers available such as .... and ....
2. .... is used to share texts, files, images and other information.
3. A Google Account enables you to use other Google features and services such as .... , ... , ... and ....
4. When creating a Google account, it must include a .... that it's difficult to guess.
5. To sign out of your Gmail account, click the .... icon.

	Answer	Explanation
(1)	Gmail - Yahoo E-mail	There are many free email providers available such as Gmail, Yahoo E-mail, Hotmail and Outlook.
(2)	Email	Email is used to share texts, files, images and other information.
(3)	Google Meet - Google Docs - Google Drive - YouTube	A Google Account enables you to use other Google features and services such as Google Meet, Google Docs, Google Drive and YouTube.
(4)	password	When creating a Google account, it must include a user name and a password that it's difficult to guess.
(5)	Sign out	To sign out of your Gmail account, click on your profile picture icon and then choose "Sign out".

Lesson 6 Cloud Computing

1 Choose the correct answer from a, b, c or d.

1. The computer storage service is ....
   a. storing files and folders locally on the computer
   b. storing files and folders over the Internet
   c. deleting and exchanging files
   d. Google classroom

2. All the following are the benefits of cloud computing except for ....
   a. ease of access
   b. availability of service
   c. reducing material costs
   d. downloading files without the internet

3. Applications like .... are used to store, share, and access files at anytime and anywhere.

a. Google Drive
b. One Drive
c. Paint
d. both a & b

4. To produce projects in cloud computing, we use ....

a. Word processing programs
b. Spreadsheets
c. both a & b
d. Paint

5. Cloud computing in education allows us to access educational materials and interact with teachers and students through ....

a. E-learning platforms
b. Video games
c. Spreadsheets
d. Video streaming services

Answer		Explanation
(1)	storing files and folders over the Internet	Cloud storage service or computer storage is storing files and folders over the Internet.
(2)	downloading files without the internet	Cloud computing has many benefits such as ease of access, availability of the service, reducing material costs and sharing digital resources with others.
(3)	both a & b	File storage services are one of computer storage services. We use services such as Google Drive and One Drive to store, share, and access files at anytime and any where.
(4)	both a & b	Producing projects by using Word processing programs such as Google Docs and spreadsheets such as Google Sheets is one of the usages of cloud computing.
(5)	E-learning platforms	We use cloud computing in education through E-learning platforms. We use E-learning platforms to access educational materials and interact with teachers and students such as the Ministry of Education Platform.

2 Put (✓) or (×) for the following sentences.

1. Microsoft Word is used to work on projects and assignments with others. (×)
2. Data processing and storage in cloud computing depend on a weak infrastructure. (×)

3. We communicate with others and share content on social media platforms such as Gmail and Outlook. (
4. Cloud computing services can be obtained without the need to own a computer with high specifications. (
5. Cloud computing is used in online banking to transfer money and pay bills. (

Answer		Explanation
(1)	×	We use cloud collaboration tools such as Google Classroom and Microsoft Teams to work on projects and assignments with others.
(2)	×	Data processing and storage in cloud computing depend on a huge infrastructure that includes data collection, transfer, processing, storage, management, and access.
(3)	×	Cloud computing applications, such as social media networks, are used to communicate with others and share content on social media platforms like Facebook, Twitter, and Instagram.
(4)	✓	One of the cloud computing benefits is that cloud computing services can be obtained without the need to own a computer or mobile phone with high specifications, whether as hardware or software components.
(5)	✓	Cloud computing can be used in online banking such as paying bills and transferring money.

3 Complete the following sentences.

1. We use messaging applications such as .... and .... to communicate and share files and photos.
2. .... are used to protect our data from loss in case of any damage happens to our devices.
3. There are some requirements to obtain cloud computing services such as .... or ....
4. The most famous cloud computing service providers are .... and ....
5. .... is a model for providing digital services over the Internet.

	Answer	Explanation
(1)	WhatsApp/ Telegram	Cloud computing applications such as messaging applications like WhatsApp and Telegram are used for communicating and sharing files and photos.
(2)	Cloud backup services	We use cloud backup services which are considered computer storage, to protect our data from loss in case of any damage happens to our devices.
(3)	a computer or mobile phone	The requirements to obtain cloud computing services are a computer or mobile phone, an internet browser or application, an internet connection and creating an account with one of the computing service providers.
(4)	Amazon - Microsoft Azure	Amazon Web Services, Microsoft Azure and Google Cloud Platform are the most famous cloud computing service providers.
(5)	Cloud computing	Cloud computing is a model for providing digital services over the Internet.

Lesson 7 Google Meet and Project Management

1 Choose the correct answer from a, b, c or d.

1. .... is a video conferencing service developed by Google that enables users to conduct group video calls, share screens and collaborate.
   a. Google Meet b. Google Account c. Google play d. YouTube
2. To express your opinion in an organized manner during a Google Meet session, you can click on the ....
   a. meeting link b. hand icon
   c. speak at any time d. exit before the meeting ends
3. You can share your entire screen or a specific window with participants at the bottom of the page by clicking on the .... icon.
   a. In call messages b. Stop Sharing c. Messages d. Share Screen
4. Google Meet is a method of .... communication.
   a. indirect b. direct c. slow d. difficult
5. You can start an instant meeting in Google Meet through all of the following except ....
   a. clicking the "New Meeting" button b. clicking "Start an instant meeting"
   c. clicking "Copy" d. clicking "Sign out"

Answer		Explanation
(1)	Google Meet	Google Meet is a video conferencing service developed by Google that enables users to conduct group video calls, share screens, chat, collaborate in real time, and work together on joint projects among students.
(2)	hand icon	Pressing hand icon helps organize sessions, talk and intervene in an organized and smooth manner.
(3)	Share screen	You can share your entire screen with participants or a specific window at the bottom of the page, click on [↑] the "Share screen" icon now.
(4)	direct	Google Meet is a method of direct communication between users to make video calls and online conferences to exchange data, information and ideas as you can use them to communicate with others face to face.
(5)	Clicking Sign out	Your can start an instant meeting in "Google Meet" by : Going to the main page of the "Google Meet" application and follow these steps : 1. Click on the "New meeting" button. 2. Click on Start an instant meeting. 3. Click on the "Copy" icon, ⧉ to share the meeting link.

2 Put (✓) or (×) for the following sentences.

1. To express your opinion in an organized manner during a Google Meet session, you can speak at any time. (×)
2. You can access the Google Meet application on Android devices through Gmail. (×)
3. During a Google Meet session, whether you're the organizer or the invitee, you can use various options and features. (✓)
4. While one participant is speaking, the rest of the participants must listen, and turn off the microphone. (✓)
5. Google Meet is a service that only provides audio. (×)

Answer		Explanation
(1)	×	To express your opinion in an organized manner during a Google Meet session, you can send a message.

(2)	✗	You can access the Google Meet application on Android devices by downloading it through the Google Play Store.
(3)	✓	During a Google Meet session, whether you're the organizer or the invitee, you can use various options and features that help maintain an organized and enjoyable meeting environment.
(4)	✓	One of the rules that you should follow during the meeting is when one participant is speaking, the rest must listen, and turn off the microphone.
(5)	✗	Google Meet is a video conferencing service that you can use to communicate with others face to face.

3 Complete the following sentences.

1. To access Google Meet services, you must have a ....
2. To help organize sessions, talk and intervene in an organized and smooth manner, you should ....
3. Send the meeting link to the participants via one of the communication tools .... or ....
4. If you are invited to a meet through a link, you should not sent the .... to someone else, and you must ask the meeting owner's permission.
5. To create a meeting for next week through Google Meet, we click on ....

Answer		Explanation
(1)	Google Account	In order to access the "Google Meet" service, you must have a "Google Account"
(2)	listen to the speaker	You should listen to the speaker in order to help in organizing the sessions, talk and intervene in an organized and smooth manner.
(3)	Email - WhatsApp	You should use email or WhatsApp when you send the meeting link to the participants.
(4)	meeting link	You should not send the meeting link to someone else, and you must ask the meeting owner's permission.
(5)	create meeting for a later time	When you create a meeting for next week through "Google Meeting", you should click on "Create a meeting for a later time"

Lesson 8 Database Design

1 Choose the correct answer from a, b, c or d.

1. .... are a collection of data and information organized and linked to each other.
   a. Charts b. Software services
   c. Databases d. Collaboration tools
2. All the following are the usages of databases except for ....
   a. saving students' information b. saving medical records
   c. tracking inventory in stores d. writing text documents
3. .... is a term that refers to extremely large and diverse sets of structured and unstructured data.
   a. Data table b. Big Data
   c. Database d. Word processing
4. .... is used to create Data Table.
   a. Word b. Excel c. Google Meet d. Both a & b
5. .... is used to create custom applications to manage data and if you have a large quantity of complex data.
   a. Word b. Excel c. Access d. Paint

	Answer	Explanation
(1)	Databases	Databases are a collection of data and information organized and linked. Databases store data and information.
(2)	writing text document	Databases are used in saving students information, saving medical records in hospitals and in tracking inventory in stores.
(3)	Big Data	The term Big Data refers to very large and diverse sets of structured, unstructured and semi-structured data that continue to grow significantly over time .
(4)	Both a & b	With "Word" and "Excel" , you can create a Data Table.
(5)	Access	Microsoft Access is used when you • have a large amount of complex data. • need to create relations between data • want to create custom applications to manage data. • need higher data security.

2 Put (✓) or (×) for the following sentences.

1. A Data Table is a non-essential element in building databases. (×)
2. Word is used to arrange and sort students' grades and perform simple calculations. (×)
3. "Table Design" is used to write the names of the table fields and specify their data type. (✓)
4. We use "Datasheet View" of the table to enter and view the table data. (✓)
5. Choose "Table Design" to display the data view window. (×)

Answer		Explanation
(1)	×	A Data Table is an essential element in building databases and the only source of data within the database.
(2)	×	Excel is used to arrange and sort students' grades and perform simple calculations
(3)	✓	You can create a "Table" in Access through "Table Design" to write the names of the table fields and specify their data type.
(4)	✓	"Datasheet View" is one of the steps in creating "Table" in Access to enter and view data in the table.
(5)	×	To display the Data View window, choose "Datasheet View".

3 Complete the following sentences.

1. .... is one of the applications used to create databases and build a complex structure for data and its management.
2. A .... consists of rows and columns.
3. The advantages of using databases include .... , ... and ....
4. Databases are used in .... and ....
5. .... is a field in a database table that is used to uniquely identify each record in that table.

Answer		Explanation
(1)	Microsoft Access	It is one of the applications used to create databases . It builds a real database, where you can build a complex structure for data and manage it more efficiently.

(2)	Data Table	A Data Table consists of rows and columns, where each row represents a single record of data, and each column represents a specific field of data.
(3)	organization, efficiency, and accuracy	Organization , efficiency , accuracy , security and sharing are advantages of using databases.
(4)	websites-data analysis	Databases are used in websites , data analysis , scientific research and business applications.
(5)	Primary key	It is a field in a database table that is used to uniquely identify each record in that table, and the primary key value is never repeated within the same table.

Lesson 9 Forms & Queries

1 Choose the correct answer from a, b, c or d.

1. A form is a graphical interface designed specifically to interact with data stored in the ....
   a. information b. database c. books d. queries
2. Click on the " .... " icon to display the data of the last record.
   a. Last record b. Next record
   c. First record d. Layout View
3. Data can be entered through the spreadsheet or through ....
   a. student grades b. queries
   c. form d. information
4. Examples of queries include creating a query to display data from a student's record or ....
   a. database
   b. tools to obtain data
   c. query design
   d. a list of students who scored the highest grades in the subject
5. The .... in a query helps you identify specific items in an Access database.
   a. results b. Design View
   c. criteria d. show

Answer		Explanation
(1)	database	A form is a graphical interface designed specifically to interact with data stored in the database.
(2)	Last record	Click on the "Last record" icon to display the data of the last record.
(3)	form	Data can be entered through the spreadsheet or through form.
(4)	a list of students who scored the highest grades in the subject	Examples of queries include creating a query to display data from a student's, record or a list of students who scored the highest grades in the subject.
(5)	criteria	The criteria in a query helps you identify specific items in an Access database.

2 Put (✓) or (×) for the following sentences.

1. A form is a graphical interface designed to interact with data stored in the database. (✓)
2. Access provides several methods that allow you to create a query. (✓)
3. We use the query design view (Query Design) to display query results. (×)
4. When you add a field using drag and drop in the design grid , Access automatically fills the Table row in the design grid with the name of the table used "Student Grades" to indicate the data source for that field. (✓)
5. When you remove the ✓ sign from the computer score columns in the Show row in the design grid , this means that these field will appear when executing the query. (×)

Answer		Explanation
(1)	✓	It is a screen that displays specific information from the database and allows the user to enter, modify or delete this information in an organized and convenient way.
(2)	✓	It is a program that provides many ways to create a query.

(3)	×	To create a new query.
(4)	✓	When you add a field using drag and drop in the design grid , Access automatically fills the Table row in the design grid with the name of the table used "Students Grades" to clarify the data source for that field.
(5)	×	It means not appearing the field when executing the query .

3 Complete the following sentences.

1. The "Design View" window is divided into .... parts.
2. You can create a new form through ....
3. The form allows the user to .... , ... or .... the information in an organized way.
4. The .... in query helps you to identify specific items in an Access data base.
5. Queries are tools used to obtain .... from the database according to specific criteria or conditions.

Answer		Explanation
(1)	two	The "Design View" window is divided into two parts, the upper part contains the data source table and the lower part is the query design grid
(2)	The Form Wizard	A new form can be created using the Form Wizard.
(3)	modify, enter delete	The form is a screen that displays specific information from the database and allows the use to enter, modify or delete this information in an organized way.
(4)	criteria	The criteria in a query helps you to identify specific items in an Access database.
(5)	data	Queries are tools used to obtain data from the database according to "specific criteria or conditions ", and through the query, information can be obtained from the database based on the data stored in the database.



Ten Sample Tests

Test 1

1 Choose the correct answer from a, b, c or d.

1. Green technology is used in the field of waste through ....
   a. increasing the amount of waste
   b. water treatment
   c. recycling waste
   d. digital transformation

2. .... contain icons for adjusting some system settings such as date and time.
   a. Icons
   b. Background
   c. Bars
   d. Desktop

3. .... is a board term that includes several devices used in industrial facilities.
   a. Industrial control systems
   b. Digital systems
   c. Embedded systems
   d. Alarm systems

4. When installing new devices, the setup program .... driver files in a dedicated folder.
   a. deletes
   b. cuts
   c. copies
   d. writes

5. Programs can be obtained either through .... or through online downloads.
   a. a compressed file
   b. one of the storage units
   c. images
   d. a printer

2 Complete the following sentences.

1. The concept of green technology aims at protecting ....
2. .... and .... are from the functions of the operating system.
3. A/An .... is a system for sending and receiving email messages online.
4. You can access cloud computing services from anywhere where .... service is available.
5. Google Meet is a service developed by ....

3 Put (✓) or (×) for the following sentences.

1. Programs cannot be installed using a DVD. ( )
2. Recycling materials helps reduce the amount of waste. ( )
3. You can start an instant meeting using Google Meet by clicking the "Create" button. ( )
4. The operating system provides a difficult interface for the user. ( )
5. Your digital project helps save time and effort. ( )

Test 2

1 Choose the correct answer from a, b, c or d.

1. The purpose of the user interface in an operating system is to ....
   a. provide an easy way to communicate between the user and the computer
   b. store data on the computer
   c. play games on the computer
   d. manage all programs on the computer

2. .... is an image or color that the user selects.
   a. Background b. Title c. Bar d. Icon

3. Using .... help you access data quickly.
   a. spreadsheets b. commercial applications
   c. databases d. websites

4. The method of displaying information in queries in databases is based on .... criteria or conditions.
   a. unorganized b. random c. specific d. number-based

5. .... helps in communication in daily life using applications of cloud computing.
   a. Email b. Software c. Application d. Cloud storage

2 Complete the following sentences.

1. .... is one of the advantages of cloud computing.
2. .... is known as sustainable or clean technology.
3. .... and .... are game consoles controllers.
4. Point of sale terminals deduct the price of products from .... instead of using cash.
5. .... is the initial screen of the operating system.

3 Put (✓) or (×) for the following sentences.

1. Email is a system for sending and receiving email messages online. ( )
2. The user name can be the same across email accounts. ( )
3. You can create a meeting for a later in Google Meet by clicking "Start". ( )
4. Data from the "Student Grades" table is displayed in "Design View". ( )
5. Your digital project can be implemented through emails. ( )

Test 3

1 Choose the correct answer from a, b, c or d.

1. Sound is turned on during the meeting in "Google Meet" by clicking on "................".
   a. Mute sound b. Sound c. Microphone icon d. Share sound
2. You can access the meeting from "Google Meet" by clicking on "................".
   a. Send b. Share c. Chat d. Link
3. .... is a national project that involves integrating digital technology into aspects of work to develop products and services.
   a. Digital Transformation b. Electric cars
   c. Green technology d. Email
4. .... is an essential element in creating databases.
   a. Row b. Column
   c. Data Table d. Digital transformation
5. .... are tools used to obtain data from a database based on specific criteria and conditions.
   a. Forms b. Digital transformation
   c. Emails d. Queries

2 Complete the following sentences.

1. Cloud computing can be used in education through ....
2. Google Meet is used to make .... calls.
3. Modern operating systems include a list of .... for several Peripheral devices.
4. Network devices like .... and .... to manage the network.
5. The background is a .... or .... that the user can select.

3 Put (✓) or (x) for the following sentences.

1. Digital transformation helps increase efficiency and productivity. ( )
2. Operating systems are essential for running and managing devices. ( )
3. The "Design View" is used to enter and display data in the table. ( )
4. Cloud computing is a model for providing digital services without internet. ( )
5. An email address consists of five main components. ( )

Test 4

1 Choose the correct answer from a, b, c or d.

1. Cloud computing is a model for providing .... online.
   a. digital services b. development of software
   c. audio communication between people d. removing folders

2. .... is one of the email service providers.
   a. Gmail b. Paint c. Youtube d. Google Doc

3. .... is a tool for collaborating and communicating with others face-to-face
   a. Word b. Zoom c. Excel d. Access

4. To stop a sharing your screen in Google Meet, click ....
   a. "New" b. "Create" c. "Sign in" d. "Stop sharin

5. To add a criteria or conditions to queries in Access, click ....
   a. "Delete" b. "Add" c. "Edit" d. "Enter criteri

2 Complete the following sentences.

1. Cloud computing can be used in .... , such as accessing educational materi
2. .... helps to reduce the emission of harmful substances from exhausts and reduce fuel consumption.
3. Sustainable technology is another name for ....
4. Data from the "Student Grades" table is displayed in ....
5. You can create a new form through ....

3 Put (✓) or (x) for the following sentences.

1. Google Meet is one of the services provided by Microsoft. (
2. Servers use operating systems like Linux. (
3. ATMs use embedded operating systems. (
4. We use servers to manage network resources and provide different services. (
5. You can use a smartphone without an operating system. (

Test 5

1 Choose the correct answer from a, b, c or d.

1. Programs can be installed through the ....
   a. CD or DVD
   b. Internet
   c. both (a) and (b)
   d. Maps

2. Smartphones and tablets depend on operating systems like Apples's ....
   a. Android
   b. iOS
   c. macOS
   d. Linux

3. A/An .... is one of the requirement for using cloud computing.
   a. printer
   b. program
   c. internet browser
   d. electric car

4. .... is an application that allows sending and receiving money through a bank account or electronic wallet.
   a. WhatsApp
   b. Facebook
   c. Telegram
   d. INSTAPAY

5. The .... feature means the operating system installs the correct and suitable program for the device.
   a. Plug and Play
   b. Control Panel
   c. CD
   d. Alt+cut

2 Complete the following sentences.

1. .... is an example of green technology.
2. .... is a device that detect the presence of a hand under the tap and control the flow of water.
3. Messages are sent and received quickly through ....
4. .... are types of queries that can be created in databases.
5. You can uninstall or install a program through the ....

3 Put (✓) or (×) for the following sentences.

1. The (#) symbol separates the user name from the email server name. ( )
2. Cloud computing can be used in e-commerce. ( )
3. Tablets are only used to connect to the internet. ( )
4. The operating system ensures the safety of computer data. ( )
5. We only use routers to manage the network. ( )

Test 6

1 Choose the correct answer from a, b, c or d.

1. An email address consists of .... main components.
   a. three b. four c. five d. seven
2. The .... is a column in a database table that is used to uniquely identify each record and whose value is never repeated within the same table.
   a. Email b. primary key
   c. digital transformation d. Google account
3. To log out your Gmail account, click on your profile picture icon and then choose "................".
   a. Sign out b. Log in c. Delete d. Create
4. Many programs come with a command ....
   a. copy b. compress c. uninstall d. paste
5. Server devices use operating systems such as ....
   a. Android b. Linux c. Tizen d. macOS

2 Complete the following sentences.

1. Data can be stored in cloud computing through ....
2. .... is government electronic portal that provides many electronics services, such as paying electricity and water bills.
3. .... is a set of symbols that make up the desktop.
4. .... is an image or color that the user selects.
5. .... is a symbol that separates the user name from the email server name.

3 Put (✓) or (×) for the following sentences.

1. To install a local printer, connect it to a USB port. ( )
2. If you don't have a printer driver, click on Windows Update. ( )
3. The first step in printer setup is to give the printer a name. ( )
4. To use Google services such as email, you must have a Google account. ( )
5. The operating system is one of the important elements in a computer system. ( )

Test 7

1 Choose the correct answer from a, b, c or d.

1. .... is the operating systems that smart TVs rely on.
   a. Android TV b. POS c. WhatsApp d. ATM

2. We can remove programs through ....
   a. control panel b. browsing websites
   c. opening folders d. downloading programs

3. .... is one of the ways for installing programs on a computer.
   a. Mobile phone b. Downloading from the Internet
   c. Smart device d. Car system

4. To create a "Google Meet" session and organize the meeting, you should .... when speaking.
   a. raise your hand b. speak at anytime
   c. send a link d. exit the meeting

5. .... provide easy, secure, and fast methods to facilitate electronic financial transactions for individuals.
   a. Electronic payment cards b. Digital Egypt Platform
   c. INSTAPAY d. Emails

2 Complete the following sentences.

1. Databases are a collection of .... data and information.
2. The Excel program is used to create ....
3. The Access program is used to create ....
4. .... helps to improve efficiency and productivity in the workplace.
5. A query in a database is a tool used to ....

3 Put (✓) or (×) for the following sentences.

1. You can select the language for a Google Meet session through "Change Language". ( )
2. When installing a program, we use "This PC" icon to access the download file. ( )
3. A user name is unique, distinctive, and not reserved by anyone else. ( )
4. To remove a program, click on Uninstall. ( )
5. Smartphones rely on operating systems like Android and iOS. ( )

Test 8

1 Choose the correct answer from a, b, c or d.

1. Google Meet is a/an ....
   a. chat application
   b. email application
   c. group video call application
   d. file management application
2. Google Meet was developed by ....
   a. Microsoft
   b. Apple
   c. Google
   d. Facebook
3. Google Docs is a .... program to create and edit documents.
   a. Word processing
   b. collaboration tools
   c. Excel
   d. video games
4. .... is the correct choice for most older printers.
   a. DVD
   b. GPS
   c. LPT1
   d. USB
5. To take advantage of all the features of a peripheral device, the operating system .... the correct Driver.
   a. deletes
   b. installs
   c. cuts
   d. sends

2 Complete the following sentences.

1. Cloud computing can be used in .... , such as e-commerce.
2. The email allows to .... with others.
3. Sensors are used in various task such as .... and ....
4. A .... is a graphical interface designed to interact with data stored in a databa
5. .... and .... are video calls and online conference applications.

3 Put (✓) or (x) for the following sentences.

1. Databases are a collection of disorganized data and information. (
2. The information can be retrieved from databases randomly. (
3. The operating system runs all other software on the computer. (
4. Android follows the operating system from Apple. (
5. Point of sale terminals (POS) are electronic devices that do not need an operating system. (

Test 9

1 Choose the correct answer from a, b, c or d.

1. The "Wizard Program" is used to ....
   a. find the driver for the new peripheral device
   b. delete programs
   c. change device settings
   d. store programs

2. Desktop and laptop computers use operating systems like ....
   a. macOS
   b. Microsoft windows
   c. iOS
   d. both a & b

3. .... are devices that can be set up and installed on a computer.
   a. Printers b. Electric cars c. ATMs d. USB devices

4. Green technology helps to ....
   a. reduce the effects of climate change
   b. increase carbon emissions
   c. increase pollution
   d. consume resources

5. When creating a new query in access, choose "................".
   a. Insert b. Create c. Delete d. Open

2 Complete the following sentences.

1. You can modify a record data from .... or ....
2. .... is one of the disadvantages of using the email.
3. You can send a Google Meet meeting link through ....
4. You can use cloud computing for messaging services, such as ....
5. To uninstall a program, use the ....

3 Put (✓) or (×) for the following sentences.

1. Green technology helps to reduce carbon emissions. ( )
2. Electric cars contribute to increase pollution. ( )
3. Recycling materials helps to protect the environment. ( )
4. Databases don't allow to store products data. ( )
5. The value of the primary key can be repeated within the same table. ( )

Test 10

1 Choose the correct answer from a, b, c or d.

1. Smartphones and tablets rely on operating system such as ....
   a. Windows b. macOS c. Linux d. iOS
2. ATMs use .... operating systems.
   a. dual b. embedded c. digital d. multiple
3. To log out your Gmail account, click on "................" icon.
   a. Sign in b. Close c. Shut down d. Sign out
4. .... is one of cloud-based spreadsheets.
   a. Paint b. Google Sheets c. Word d. Google Docs
5. Google Meet is a method of .... communication.
   a. direct b. indirect c. difficult d. slow

2 Complete the following sentences.

1. You can download Google Meet on Android devices through ....
2. .... is one of the important ways to protect the environment.
3. A Google account consists of .... and ....
4. .... is a national project that links all government agencies to each other.
5. You can use .... to create simple calculations.

3 Put (✓) or (×) for the following sentences.

1. You can remove a program without needing an operating system. (
2. You can't use a computer without installing any programs. (
3. Programs can be installed from a DVD or downloaded the program from the Internet. (
4. Databases don't allow to store data about websites. (
5. The design view for a query is divided into two sections, the lower part is for the data source table. (

Answers of The Main Book

Lesson 1 Green Technology

El-Moasser Exercises

1 Choose the correct answer from a, b, c or d.

(1) **a.** increasing pollution
(2) **b.** Reducing waste
(3) **c.** Reducing water waste
(4) **b.** conserving water
(5) **a.** Sensors
(6) **c.** Protecting the environment
(7) **d.** both (a) and (c)
(8) **c.** reducing the effects of climate change
(9) **b.** batteries

2 Complete the following sentences.

(1) Green Technology
(2) Electric vehicles / Electric cars
(3) Green Technology
(4) environment
(5) Rationalizing energy

3 Put (✓) or (×).

(1) (×) decrease water consumption
(2) (×) decrease
(3) (×) decreasing environmental pollution
(4) (×) optimizing water and electricity

Student's Book Exercises

*** Put (✓) or (×).**

(1) (×) decreasing the rate
(2) (×) (turn on / off)
(3) (✓)
(4) (✓)

Lesson 2 Digital transformation and its importance in our daily lives

El-Moasser Exercises

1 Choose the correct answer from a, b, c or d.

(1) **c.** increasing energy using
(2) **a.** Saving time and effort
(3) **d.** communication weakness between the citizens and the digital service providers
(4) **a.** INSTAPAY
(5) **c.** using old transportation

2 Complete the following sentences.

(1) Digital Transformation
(2) efficiency (3) innovation
(4) Digital Egypt

3 Put (✓) or (×).

(1) (×) Digital transformation help
(2) (✓) (3) (✓) (4) (✓)
(5) (×) Digital transformation help
(6) (×) Digital transformation increases

Student's Book Exercises

*** Choose the correct answer from a, b, c or d :**

(1) b. digital transformation tools
(2) a. INSTAPAY
(3) c. Access digital services quickly and securely
(4) b. reducing harm to the surrounding environment.

Accumulative Test on Lessons 1 & 2

1 Choose the correct answer from a, b, c or d.

(1) **d.** Both (a) & (c)
(2) **a.** The Digital Egypt Platform

(3) a. Reducing harmful emissions
(4) b. providing easy and fast payment methods
(5) a. Sensors

2 Put (✓) or (×).

(1) (✓) (2) (×) decrease
(3) (✓) (4) (✓) (5) (✓)

Lesson 3 Operating Systems

El-Moasser Exercises

1 Choose the correct answer from a, b, c or d.

(1) b. ATM
(2) c. Gaming Consoles
(3) c. taking photoes
(4) c. both (a) & (b) (5) d. Android or iOS
(6) b. Embedded (7) d. PHP
(8) a. adjust and monitor the progress of industrial operations

2 Complete the following sentences.

(1) the user, hardware
(2) the hardware components
(3) operating system (4) Bars
(5) the performance of machines and industrial processes

3 Put (✓) or (×).

(1) (×) Smart TVs (2) (✓)
(3) (×) embedded (4) (✓)
(5) (✓)

Student's Book Exercises

1 Choose the correct answer from a, b, c or d.

(1) b. Operating systems (2) c. Linux
(3) a. Smart TVs (4) d. Routers
(5) a. Information and navigation system
(6) a. POS Terminals

2 Put (✓) or (×).

(1) (×) Operating systems
(2) (✓) (3) (✓) (4) (✓)
(5) (×) necessitate an operating system

Lesson 4 Installation and removal of software and digital peripherals

El-Moasser Exercises

1 Choose the correct answer from a, b, c or d.

(1) a. driver files
(2) d. removing or uninstalling programs
(3) b. extract

2 Put (✓) or (×).

(1) (✓) (2) (✓) (3) (✓)
(4) (×) supports many devices
(5) (✓) (6) (✓)

Student's Book Exercises

1 Choose the correct answer from a, b, c or d.

(1) b. file
(2) b. Deleting all the program files from the computer
(3) b. uninstall their installation
(4) b. saving storage space
(5) b. install the appropriate driver for the peripheral device
(6) b. drivers (7) d. drivers
(8) b. the operating system installs the correct and appropriate driver for the new peripheral device

2 Put (✓) or (×).

(1) (✓) (2) (✓) (3) (✓)
(4) (✓) (5) (✓) (6) (✓)
(7) (✓) (8) (×) include (9) (✓)

Accumulative Test on Lessons 3 & 4

1 Choose the correct answer from a, b, c or d.

(1) **c.** select the installation file SETUP.EXE
(2) **d.** both b & c
(3) **c.** Embedded device operating systems
(4) **c.** use the control panel
(5) **d.** Installing/uninstalling programs on your device

2 Put (✓) or (×).

(1) (✓) (2) (×) PCs devices
(3) (×) iOS and Android (4) (✓)
(5) (✓) (6) (✓)

Lesson 5 Email

El-Moasser Exercises

1 Choose the correct answer from a, b, c or d.

(1) **d.** a unique and distinctive name that is not reserved by anyone else
(2) **a.** separates the user name from the domain name
(3) **a.** Ayman22_2@gmail.com
(4) **a.** Speed in sending and receiving messages
(5) **c.** access to many Google services

2 Complete the following sentences.

(1) Gmail (2) the indirect
(3) User name (4) The @ symbol
(5) Google Account

3 Put (✓) or (×).

(1) (×) The User name (2) (✓)
(3) (✓) (4) (✓) (5) (✓)

Student's Book Exercises

1 Choose the correct answer from a, b, c or d.

(1) **b.** digital communication system
(2) **b.** use cloud computing applications
(3) **b.** to share information
(4) **a.** speed in sending and receiving messages very quickly
(5) **b.** one of the indirect communication tools
(6) **d.** hacking (7) **a.** Gmail
(8) **b.** Google Account (9) **b.** Sign out

2 The email address consists of:

1- User name 2- The @ symbol
3- Domain name

Lesson 6 Cloud Computing

El-Moasser Exercises

1 Choose the correct answer from a, b, c or d.

(1) **a.** Google Drive
(2) **c.** Both (a) and (b)
(3) **c.** Google Classroom
(4) **c.** printing documents
(5) **d.** data hacking

2 Complete the following sentences.

(1) It doesn't need to own a computer or mobile phone, with high specifications
(2) producing project
(3) online banking

3 Put (✓) or (×).

(1) (✓)
(2) (✓)
(3) (×) You can

Student's Book Exercises

1 Choose the correct answer from a, b, c or d.

(1) b. Digital services over the internet
(2) b. storing files and folders over the internet
(3) a. enabling the use of software and applications over the internet
(4) c. Sharing and exchanging files with others over the internet
(5) a. Email
(6) c. Computing storage
(7) a. Google Docs
(8) b. Google Sheets
(9) c. Google Classroom
(10) d. Google Cloud Platform

Accumulative Test on Lessons 5 & 6

1 Choose the correct answer from a, b, c or d.

(1) a. sending files
(2) c. remotely controlling your device
(3) d. your phone number
(4) d. Email
(5) a. Google Cloud Platform

2 Put (✓) or (×).

(1) (✓) (2) (✓)
(3) (×) at the beginning
(4) (×) can protect
(5) (×) in an easy way
(6) (✓)
(7) (×) Cloud Computing allow

Lesson 7 Google Meet and Project Management

El-Moasser Exercises

1 Choose the correct answer from a, b, c or d.

(1) c. Google Account
(2) a. make group calls
(3) a. Share screen
(4) a. "Stop sharing"
(5) a. "Hand"

2 Complete the following sentences.

(1) In call messages
(2) listen and turn of the microphone and raising your hand to ask
(3) Google Account
(4) conduct group video calls

3 Put (✓) or (×).

(1) (×) Video conferencing service
(2) (×) to conduct group video calls
(3) (✓) (4) (✓)

Student's Book Exercises

1 Choose the correct answer from a, b, c or d.

(1) d. Video conferencing service
(2) c. Google Meet
(3) b. Google Account (4) b. direct
(5) a. sharing screens
(6) b. hand icon
(7) b. Listening, hearing and turning of the microphone
(8) b. meeting link
(9) b. meeting for a later time
(10) b. meeting link
(11) c. send a message
(12) a. do not send the meeting link to others
(13) c. stop sharing the presentation
(14) b. raise your hand
(15) b. listen to the speaker

Lesson 8 Database Design

El-Moasser Exercises

1 Choose the correct answer from a, b, c or d.

(1) a. Databases
(2) d. difficulty in accessing data
(3) d. huge, organized and unorganized

(4) **a.** is an essential element in building databases

(5) **d.** "Save" (6) **c.** "Datasheet View"

2 Complete the following sentences.

(1) simple

(2) programs and applications

(3) organized

(4) storage and retrieval

3 Put (✓) or (×).

(1) (✓)

(2) (×) Databases provide

(3) (✓) (4) (×) Access

(5) (×) Datasheet View

Student's Book Exercises

1 Put (✓) or (×).

(1) (×) are related

(2) (×) digitally (3) (✓)

(4) (✓) (5) (✓)

(6) (×) easy (7) (×) is an essential

(8) (✓)

(9) (×) represents a single record

(10) (✓) (11) (✓)

(12) (✓) (13) (×) to write text only

(14) (✓) (15) (✓)

(16) (✓) (17) (×) can't be repeated

Accumulative Test on Lessons 7 & 8

1 Choose the correct answer from a, b, c or d.

(1) **c.** audio and video calls

(2) **c.** Google

(3) **b.** making group audio and video calls

(4) **b.** "Create"

2 Put (✓) or (×).

(1) (×) set of organized

(2) (×) easily and efficiently

(3) (×) Databases allow

(4) (×) Video conferencing service

(5) (✓)

(6) (×) microphone icon (7) (✓)

Lesson 9 Forms & Queries

El-Moasser Exercises

1 Choose the correct answer from a, b, c or d.

(1) **a.** Forms (2) **b.** Access

(3) **d.** queries (4) **d.** Criteria

(5) **b.** Create

2 Complete the following sentences.

(1) Form Wizard (2) enter and modify

(3) Query Design

(4) create a query to display data from a student's record

(5) Criteria (6) drag and drop

3 Put (✓) or (×).

(1) (×) can enter and modify data

(2) (×) Layout View

(3) (×) You can add (4) (✓)

(5) (×) Query Design

(6) (×) through drag and drop

Student's Book Exercises

1 Put (✓) or (×).

(1) (✓) (2) (✓)

(3) (✓) (4) (×) the form appear

(5) (✓) (6) (✓)

(7) (×) The Run icon in the results group

(8) (×) two parts

(9) (×) the lower part

(10) (×) the upper part

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